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ABSTRACT

This packet of technology learning activity (TLA) materials on electronic publishing for students in grades 6-10 consists of a technology education overview, information on use, and the instructor's and student's sections. The overview discusses the technology education program and materials. Components of the instructor and student sections are described next. The instructor's section contains background information, suggested activities, suggested resources, and expected learner outcomes. A lesson plan for the 8-day module includes assignments; equipment, tools, and supplies list; and facilities requirements or modifications. The following forms are provided: summary worksheet, pretest, posttest, test answers, and evaluation summary. A bibliography concludes the instructor's section. Topics are as follows: using Microsoft Publisher software, layout, using the drawing tools, and designing and creating original publications. The student section provides materials for each day, including the following: summary of activities, assignments to turn in; goal; vocabulary; expected learner outcomes; list of objectives; list of related Technology Student Association competitive events; and academic and workplace applications reinforced by specific activities in this TLA. An optional activity concludes the student section. (YLB)

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ED 380 592

Technology Learning Activity

Technology Education Series

ELECTRONIC PUBLISHING

TLA TE-1135

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Office of Educational Research and Improvement
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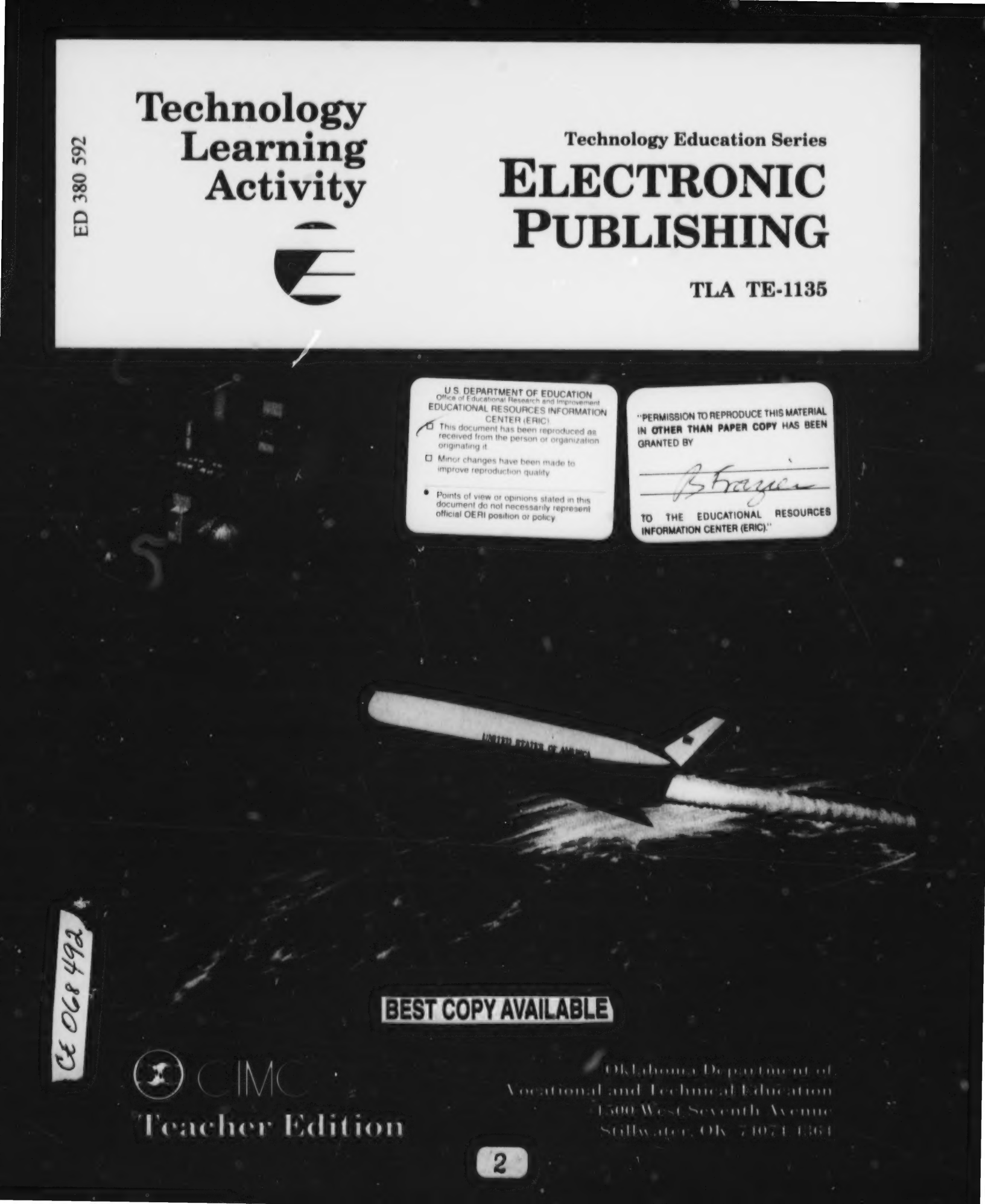

CE 068 492

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CIMC

Teacher Edition

Oklahoma Department of Vocational and Technical Education
1500 West Seventh Avenue
Stillwater, OK 74074-4364

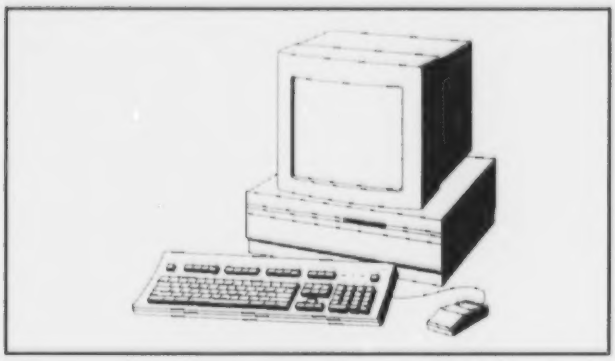
TECHNOLOGY EDUCATION

TECHNOLOGY LEARNING ACTIVITY

TE1135

Electronic Publishing

Suggested Time: 8 Days



Developed by the
Curriculum and Instructional Materials Center
for the Technology Education Division
Oklahoma Department of Vocational and Technical Education

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Curriculum and Instructional Materials Center

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TABLE OF CONTENTS

FOREWORD 4
PREFACE 5
ACKNOWLEDGEMENTS 6

TECHNOLOGY EDUCATION OVERVIEW
- About the Program 7
- About the TLAs 9
- About Ordering TLAs 11
- Corrections and Suggestions 13

USING THIS PUBLICATION: INSTRUCTOR'S SECTION
- Background Information 14
- Priority Academic Student Skills 14
- Suggested Activities 16
- Suggested Resources 16
- Instructional Sequence 17
- Equipment, Tools, and Supplies Summary Worksheet 17
- Pretest and Posttest 17
- Test Answers 17
- Evaluation Summary 17

USING THIS PUBLICATION: STUDENT'S SECTION
- Introduction 18
- Summary of Activities for the Day 18
- Pretest Instructions 18
- Assignments to Turn In 19
- Goal 19
- Words You Should Know 19
- Priority Academic Student Skills 19
- Objectives 20
- Related TSA Competitive Events 20
- Academic and Workplace Applications 20
- Impact Statements 27
- Career Search 28
- Posttest Instructions 28
- Skunk Works 28

HAZARD ALERT MESSAGES 29

INSTRUCTOR'S SECTION 31

STUDENT'S SECTION

FOREWORD

What will be the careers of the future? The workforce of tomorrow will be shaped by the technologies being developed today. Students today need accurate, interesting information on growing technologies in order to make informed decisions about their futures.

It is our hope that this curriculum will help improve the quality of career decisions for our students. Students are introduced to a wide range of current, "cutting-edge" technologies and are encouraged to think critically about how those technologies influence their lives and futures. Today's students do not have to become the victims of "technological illiteracy," but instead can learn to anticipate technological developments and take positive steps to prepare for the future.

Technology Learning Activities provide students with the knowledge and an introduction to the skills they need for a positive learning and career experience. Every generation is faced with learning how to manage technological advances. Information gained through participation in the *Technology Education* program can help students develop a holistic view of technology on which to base their educational and career decisions.

Roy Peters, Jr., Ed.D., State Director
Oklahoma Department of
Vocational and Technical Education

Lynn Hawkins, State Supervisor
Technology Education
Oklahoma Department of
Vocational and Technical Education

PREFACE

We believe that one of the most effective ways to improve education is through the development and implementation of a sound instructional materials system. Technology Education instructional materials represent a new design for CIMC which recognizes the importance of graphic materials in the learning process.

Technology Education instructional materials are designed for 6th through 10th grade students. The design of these materials is based on current research on how people read and gain information from documents. The design is called "New Look" and integrates both graphics and text into a balanced presentation which is easy to use and follow.

Technology Education provides the student a look at what the world will be like in the future based on technologies in use and being developed today. Throughout the Technology Education instructional materials, the students are introduced to "cutting-edge" technologies that they will use and encounter in a working environment later in life. This exposure gives them a wide range of experiences on which to base career decisions.

This publication is intended as a starting point, from which the teacher can innovate, localize, and personalize in order to prepare students for their future. The *Technology Education* series of Technology Learning Activities was written with the realization that we are creating the workforce of tomorrow by how and what we teach about technology today.

Ann Wolfe, Instructional Design Specialist
Curriculum and Instructional Materials Center
Oklahoma Department of
Vocational and Technical Education

ACKNOWLEDGEMENTS

The Curriculum and Instructional Materials Center (CIMC) extends its appreciation to those individuals who played important roles in the development of Technology Learning Activity materials.

Generous thanks is extended to Lynn Hawkins, formerly a Technology Education teacherand currently State Supervisor, and Jim Harder, a Technology Education teachers at Mayfield Junior High School, for the time, talent and knowledge they contributed in determining the content of this Technology Learning Activity (TLA).

We also thank the State Director, Dr. Roy Peters, Jr., and the Assistant State Director, Dr. Charles O. Hopkins, for their continued support throughout this project.

Oklahoma Department of Vocational and Technical Education Technology Education staff who provided leadership and direction on this project also deserve special recognition.

Lynn Hawkins
State Supervisor
Technology Education

Donovan Bowers
Assistant State Supervisor
Technology Education

Harold Holley
Assistant State Supervisor
Technology Education

Only through the close cooperation of the Curriculum and Instructional Materials Center staff was this curriculum developed. Sincere thanks are shared with the CIMC coordinators.

John Friedemann
CIMC Coordinator

Lynna Ausburn, Ph.D.
CIMC Development Coordinator

Special recognition and thanks are also extended to other individuals within the Oklahoma Department of Vocational and Technical Education (ODVTE) involved in the development and distribution process: Danny Darrow and Diane Ensign and their staffs at the ODVTE Print Shop; Bob Davis and staff artist Kathryn Moore for the cover design; Darrel Stiles and his staff in the ODVTE Warehouse for packaging and coordinating transportation and distribution of these materials; and Rose Primeaux and her staff in Word Processing.

Finally, a big thank you to all ODVTE team members who offer their support on a daily basis in "behind-the-scenes" ways but never seem to be recognized for their contributions: Suzanne Perry and Terri Thomson, CIMC secretaries; Karen Heppel and Shirley Hill, Technology Education secretaries.

TECHNOLOGY EDUCATION OVERVIEW

About the Program

Because the American culture is distinctly characterized as technological, it becomes the function of our schools to give every student an insight into and an understanding of the technological nature of the culture. Technology Education strives to perform this function.

Technology Education in Oklahoma is an instructional program that provides young men and women (grades 6–10) with daily, hands-on exploratory experiences and insights into technology and career opportunities so that they can make meaningful occupational and educational choices. It is a program which can enhance the educational experience of all students, whether they are the valedictorian/honor-type student, the middle range/average student, or the student who has found little success in school, namely the at-risk student.

Technology Education acquaints all students with their technological environment so they can make rational decisions about their own lives on a day-to-day basis and participate in controlling their own destiny. The program directs students to related technological and industrial fields, enabling students to realize their full potential and make maximum use of their individual talents in fulfilling career goals in their selected areas of employment.

Technology education capitalizes on the individual's potential for reasoning and problem solving, for imagining and creating, and for constructing and expressing through the use of tools and materials related to technology. It develops content and experiences to contribute to the growth and development of students commensurate

with their potential. Thus, Technology Education is a basic and fundamental study for all persons in regard to career explorations and educational opportunities.

Opportunities to develop and apply leadership, social, civic, and technologically related skills are provided through the Technology Student Association (TSA). TSA is the appropriate vocational student organization identified as a teaching tool for teachers to use in assisting students to achieve identified course competencies. Competency-based activities are an integral part of the instructional program.

All Technology Education courses are taught in a one-period block of time (45–55 minutes), with each of the four Technology systems (communication, construction, manufacturing, and transportation, energy and power) being designed to provide a means through which other courses such as math, science, English, and social studies can be applied in a practical manner within a technology-based situation. Teaching across the curriculum is vital to the success of a Technology Education program.

TECHNOLOGY EDUCATION OVERVIEW

About the TLAs

The Technology Education series consists of 40 Technology Learning Activities (TLAs) for instruction and a supplemental activities book. Each TLA is divided into two parts: an instructor's guide and a student guide. The instructor's guide provides an overview of Technology Education, a summary of activities and supplies needed for students to complete the Technology Learning Activity, a supplies and materials worksheet for the instructor, an overview of the particular TLA, written exam answer sheets, and evaluation summary for the TLA.

Master copies of the evaluation summary sheets, pretest and posttest, and supplies and materials worksheets are provided with this instructors edition of the TLA. These sheets may be reproduced for classroom use.

All of the TLAs focus on measurable and observable learning outcomes. Instructors are encouraged to supplement, personalize, localize, and motivate with these materials in order to develop a complete teaching/learning process.

TLAs are designed for use in more than one class period of instruction. Careful study of each TLA by the instructor will help her or him determine the following:

- Skills to demonstrate
- Supplies and equipment needed
- Amount of time needed for student practice

TECHNOLOGY EDUCATION OVERVIEW

- Workstation Bookshelf, Instructors Reference Materials, and a bibliography are provided for supplemental resources
- Supplementary materials, including print and non-print media to order
- Resource people to contact
- Facility modifications which may be necessary to administer the TLA

Each TLA is based on performance objectives. Performance objectives are specific, stating the performances necessary to meet the goal of the TLA.

The overall goal of the unit tells what the student should be able to do and what standard will be used to determine whether the student has achieved competency. The specific objectives outline the sequence of the competencies required to meet the TLA goal. The competencies may be either cognitive, requiring knowledge only, or psychomotor, requiring knowledge and skill.

TECHNOLOGY EDUCATION OVERVIEW

About Ordering TLAs

Additional TLAs in the Technology Education series may be ordered through the Oklahoma State Department of Vocational and Technical Education, Curriculum and Instructional Materials Center, 1500 West Seventh Avenue, Stillwater, OK 74074-4364. Phone 1-800-522-5810.

NOTE: The 1100- and 1200-series numbers given on the next page are for ordering TLA Instructor's Editions; to order Student Editions, change the first two numbers to 31 (for 8-Day TLAs) or 32 (for 6-Week TLAs).

TECHNOLOGY EDUCATION OVERVIEW

TLA Title	Order No
8-DAY TLAs	
Aerospace and Flight	TE1117
Agricultural Education	TE1123
Audiovisual Programming	TE1131
CAD—Autocad Release 10	TE1114
Career Search	TE1104
Drafting	TE1134
Electricity—Principles and Applications	TE1105
Electronic Publishing	TE1135
Electronics (CES)	TE1106
Fluidics Technology	TE1116
Health Occupations	TE1124
Home Economics	TE1125
Introduction to VoTech	TE1122
Introduction to Animation	TE1132
Keyboarding and Computer Application	TE1115
Laser/Fiber Optics/Holography	TE1129
Lasers Technology	TE1103
Marketing Education	TE1126
Material Processes—Plastics	TE1133
NASA Aerospace—Spacelink	TE1111
Photography	TE1130
Problem Solving	TE1110
Research and Design	TE1101
Residential Construction	TE1121
Robotics—Control Technology	TE1112
Robotics—ProArm	TE1113
Safety (Design Briefs)	TE1107
Structural Engineering	TE1102
Synergetic Technology	TE1120
Technical Report Writing	TE1118
Technology Challenge	TE1109
Thermal Screen Printing	TE1119
Trade and Industrial Education	TE1127
TSA Leadership	TE1108
Vocational Business	TE1128
6-WEEK TLAs	
Animator	TE1203
CAD/Board Drafting	TE1201
Control Technology	TE1202
Electronics/Electricity/Robotics	TE1204
Electronic Publisher	TE1205

TECHNOLOGY EDUCATION OVERVIEW

Corrections and Suggestions

CIMC wants to provide Technology Education instructors and students materials that are accurate and effective. Although the CIMC strives to maintain the highest standards of development and production, oversights occasionally do occur. If you find any errors in this or other CIMC publications or have suggestions for improving their usefulness, please notify the CIMC staff. One easy way of pointing out errors is to make a photocopy of the affected page and indicate the correction on the copy. Mail this information to the CIMC, where it will be used to correct the publication before the materials are reprinted.

To ensure that the material is updated on a timely basis, notify the CIMC of necessary corrections as soon as possible. Do not assume that someone else will notice the error and inform the CIMC; other users may be making the same assumption. Please send corrections and recommendations for improving this publication to the following address:

Curriculum Development Coordinator
Curriculum and Instructional Materials Center
Oklahoma Department of Vocational and Technical Education
1500 West Seventh Avenue
Stillwater, Oklahoma 74074-4364

USING THIS PUBLICATION

INSTRUCTOR'S SECTION

- The student will think logically and sequentially.
- The student will develop leadership, creative abilities, positive self-concepts, and individual potential in a technological society.
- The student will develop an understanding and the ability to adapt to those technological forces that influence life in the 21st Century.
- The student will develop an understanding of economic development.
- The student will communicate by making clear and relevant points through the development of mental process skills.
- The student will apply design, imagination, and creative abilities.
- The student will explore the organization and management systems of business and industry.

USING THIS PUBLICATION	INSTRUCTOR'S SECTION
Suggested Activities	The suggested activities component is to assist during the preparation stage of the teaching/learning process. The activities provide suggestions for preparation and evaluation during the instructional process. The instructor should read the suggested activities before assigning the TLAs to allow time to obtain supplemental materials, prepare audiovisual materials, and contact outside resource persons. Duties of the instructor will vary according to the particular TLA.
Suggested Resources	Suggested resources, include people, as well as print and non-print media that may be used with the TLA. References used during the development of each TLA are also provided. The instructor can use suggested resources and TLA references to supplement her or his knowledge of the subject to help students with particular interests or objectives in the area covered. Please note that suggested resources and references listed in this publication existed when this publication was written. CIMC assumes no responsibility for providing these materials and cannot ensure the availability of these materials as individual vendors, manufacturers, and publishers may discontinue these products at any time.

USING THIS PUBLICATION	INSTRUCTOR'S SECTION
Instructional Sequence	This component provides instructors with daily lesson plans for the TLA. Included in the instructional sequence component are suggested daily assignments and equipment, tools, and supplies that will be needed for each student. A column for facility requirements or modifications is provided for each instructor. This component is provided as a guide to plan for and monitor students' progress through the TLA.
Equipment, Tools, and Supplies: Summary Worksheet	This component is provided as a planning tool for instructors. It provides instructors with a list of the necessary equipment, tools and supplies to support student activities and provides specific information for budgeting purposes.
Pretest and Posttest	These components provide criterion-referenced evaluation of the objectives listed in each TLA. If objectives or activities have been added, deleted, or modified, appropriate changes should be made on the tests.
Test Answers	This component is provided to assist instructors in evaluating student performance on written tests.
Evaluation Summary	This component is provided to assist instructors in summarizing the performance of each student on an individual basis. The evaluation summary forms are also provided as photocopy masters for the instructors use.

USING THIS PUBLICATION

STUDENT'S SECTION

Introduction

Daily activities are the step-by-step procedures students will follow to complete the learning experience. Each TLA is organized by daily tasks and activities. Students are able to pace their progress through the TLA by referring to the activities for the day.

Within the daily activity pages are components common to all TLAs.

Summary of Activities

A Summary of Activities page begins each day of the TLA. This page provides several important pieces of information for both the student and instructor.

1. In the left column this page provides the student with a list of activities to be accomplished that day.
2. In the right column the major Academic and Workplace Application which applies to that day's activities is graphically indicated with a standard icon.
3. Below the icon is a list of specific skills reinforced during that day's activities.

Pretest Instructions

The students are required to take a Pretest as one of the first day's activities. The instructions for the Pretest are given in this section.

USING THIS PUBLICATION	STUDENT'S SECTION
Assignments to Turn In	Day One includes a list of all assignments the students are expected to turn in during or at completion of the TLA. This list includes all tests, activities, and products covered in the TLA.
Goal	On Day One, following the assignments checklist, is a concise statement of the overall goal of the TLA. This statement summarizes the purpose for completing the TLA and encourages the student to think about the broader implications of the learning experience.
Words You Should Know	The first day's activities includes a glossary of unfamiliar technical terms used in the TLA. Often these terms are necessary for the student in order to accurately follow instructions in the activity procedures. The students should be encouraged to review this glossary and refer to it often during the course of the TLA.
Priority Academic Student Skills Reinforced by this TLA	As stated in the guide to the Instructors Section, there are 14 identified Priority Academic Student Skills associated with the Technology Education series. This section of Day One activities lists the Priority Academic Student Skills that specifically apply to the TLA. A student who reviews this list will gain a better understanding of the scope of experiences and skills to be gained from the TLA.

USING THIS PUBLICATION	STUDENT'S SECTION
Objectives	Each TLA is made up of a set of measurable objectives. In this section on Day One, students are given a list of all the objectives addressed in the TLA. This list can serve to introduce students to the "flow" of the TLA as they build introductory skills in a technology.
Related TSA Competitive Event(s)	Each TLA may be used by students to begin work toward completion of a Technology Student Association competitive event. Some TLAs are tied to a specific TSA event; other TLAs may be used with several events. This Day One section gives the student and instructor a list of appropriate TSA events which the TLA may support. TSA competitive events promote leadership development, and an understanding that winning isn't everything but involvement is. Events are staged at Local, Regional, State, and National levels through which the student may progress.
Academic and Workplace Applications	The curricular content and activities found in this Technology Learning Activity help students apply academic and workplace competencies. These competencies include: Reading Skills, Writing Skills, Mathematics Skills, Science Skills, Oral Communications Skills, Interpersonal or Relating Skills, Creative Thinking and Problem Solving Skills, Employability Skills, and Social Studies Skills.

USING THIS PUBLICATION

STUDENT'S SECTION

Preparing students to enter successfully into today's world . . .

Preparing students to enter successfully into today's world of work offers vocational education a substantial challenge. The contemporary workplace is characterized by constant and rapid technological change and by increasing job complexity and skill intensity. Due to rapid technological advancement, the half-life of work skills is now reduced to a bare three to five years. Out of this new workplace environment has arisen a growing national awareness of the critical importance of an American workforce armed with the skills necessary to survive in a competitive economy.

. . . emergence of a renewed emphasis on basic academic skills . . .

One result of this national awareness has been the emergence of a renewed emphasis on basic academic skills in all areas of education. Pressure to increase academic skill development is being placed on education by both legislative action and industry mandate. The Carl D. Perkins Vocational and Applied Technology Education Act of 1990 sets stringent academic and workplace skill requirements for vocational education. State legislatures are increasingly requiring basic skills accountability by teachers and school administrators.

. . . expected learner outcomes are being implemented with increasing frequency.

Graduation exams, minimum competency requirements, and expected learner outcomes are being implemented with increasing frequency. In addition, business and industry are delivering the message clearly to educators that vocational competence now requires increased strength in academic and workplace skills.

The issue of the basic skills currently required in the work place was very successfully

USING THIS PUBLICATION

STUDENT'S SECTION

The issue of basic skills . . . was successfully addressed in a national three-year study . . .

addressed in a national three-year study conducted jointly by the American Society of Training and Development (ASTD) and the U.S. Department of Labor (DOL). The findings of this study were published in 1990 in the book, Workplace Basics: The Essential Skills Employers Want.

. . . research indicates clearly that American employers . . . need a variety of skills . . .

The ASTD/DOL research indicates clearly that American employers have discovered that their workforces need a variety of skills that include, but are not limited to, the classic academic trio of reading, writing, and computation. Employers now are also looking for competence in areas such as "learning to learn," problem solving and critical thinking, interpersonal and teamwork skills, oral communication and listening techniques, and the social and personal management skills that demonstrate a capacity for independence and responsibility in on-the-job performance.

. . . business and industry have expanded and redefined "workplace basics."

It is clear that the requirements of today's business and industry have expanded and re-defined "workplace basics." It is in line with this re-definition, and with the competency requirements of current education legislation, that the Oklahoma Department of Vocational and Technical Education has chosen to address "basic skills" in the instructional materials produced by its Curriculum and Instructional Materials Center.

USING THIS PUBLICATION

CIMC materials contain information and activities which develop academic and workplace application competencies . . .

To assist teachers and students in identifying activities which promote academic and workplace skills . . .

STUDENT'S SECTION

It is not a new development for CIMC materials to contain information and activities which develop academic and workplace application competencies in students undertaking vocational programs. What is new is the specific marking, or flagging, of items in our instructional materials that address academic and workplace application skills.

To assist teachers and students in identifying activities which promote academic and workplace skills development, CIMC has implemented a marking system which uses simple graphic symbols, or icons. These icons are located in the right margins of Activity Sheets. The following is an explanation of the icons and the kinds of academic and workplace application activities they indicate.

USING THIS PUBLICATION

READING SKILLS: Skills involving use of print resource material for obtaining and applying information.

WRITING SKILLS: Skills involving written communication of processes, information, or ideas.

MATHEMATICS SKILLS: Skills involving computation, calculation, and interpretation of numerical data.

STUDENT'S SECTION

Current vocational education literature indicates that functional literacy as a workplace basic needs to be defined in terms of reading competencies actually required for job performance. The activities identified with this icon as addressing reading skills in CIMC materials deal specifically with developing reading skills in an applied, job-related context. These range from general information-gathering activities to tasks requiring use of specific technical reference materials. Many contain a "learning to learn" aspect, which promotes engaging actively and purposefully in vocationally relevant enquiry.

Tasks identified with this icon promote development of skills in written communications. As with reading skills, the writing skills emphasized in CIMC materials have a vocational context. They include filling out forms, keeping work activity records, writing simple memos and letters, generating more complex reports and articles, and written expression of ideas and concepts related to vocational performance or exploration.

This icon identifies activities which develop vocationally-related skills in computation, measurement and estimation, selection and application of appropriate mathematical processes, and collecting, displaying, or interpreting data.

USING THIS PUBLICATION

SCIENCE SKILLS: Skills involving mastery and application of scientific information or theory.

ORAL COMMUNICATION SKILLS: Skills involving speaking and listening.

INTERPERSONAL OR RELATING SKILLS: Skills involving working and getting along with others.

STUDENT'S SECTION

This icon marks activities which are related to the development of skills in either the physical or biological sciences. These skills stress occupationally-related applications of science and technology.

Activities marked with this icon promote development of effective speaking and listening. They include practice in such areas as speaking techniques, word choice, non-verbal messages, use of communication media, and using active listening techniques. Many of these activities promote "learning to learn" skills in verbal enquiry.

Activities which deal directly with skills in relating to others are marked with this icon. This includes areas such as multi-cultural awareness, group processes and dynamics, negotiation, dealing with conflict, cooperation and teamwork, values and attitudes, and leadership and motivation.

USING THIS PUBLICATION

STUDENT'S SECTION

CREATIVE THINKING AND PROBLEM SOLVING

SKILLS: Skills involving comprehending, applying, analyzing, and developing complex ideas and situations.

This icon identifies activities which stress development of higher-order thought processes such as problem identification and analysis, lateral thinking, evaluating alternatives, developing solutions, examining assumptions, and evaluating outcomes.

EMPLOY-ABILITY SKILLS: Skills involving choosing, obtaining, and succeeding in a career.

Activities marked with this icon relate to competencies required to obtain employment and develop a career. These competencies include specific occupational tasks. They also include items such as career analysis and selection, job searching, completing applications and resumes, interviewing, and business etiquette and personal management skills required for job-keeping and maturing in one's work. Examples of the latter category include personal presentation, self-discipline, work accuracy, reliability, discretion, punctuality, stress handling, judgement, confidence, etc.

SOCIAL STUDIES SKILLS: Skills involving investigation and application of social concepts.

This icon marks activities which stress competencies in fields relating to human society and its distribution and relationships. This includes areas such as history, geography, government and politics, economics, psychology, sociology, demographics, current events, cross-cultural studies, consumer issues, environmental issues, and ethical concerns in science and technology.

USING THIS PUBLICATION

Impact Statements

STUDENT'S SECTION

There are five areas of human culture for which each TLA has an impact. These impact statements appear during Day Eight, after the student has gained some familiarity with the technology.

1. **ENVIRONMENTAL IMPACT:** A statement introducing the student to the impact of the technology on the environment.
2. **SOCIAL/CULTURAL IMPACT:** A statement concerning the impact of the technology on society and culture.
3. **ECONOMIC IMPACT:** A statement concerning the impact of the technology on the economy.
4. **POLITICAL IMPACT:** A statement concerning the impact of the technology on politics, laws, and regulations, and the impact of politics on the development of the technology.
5. **ERGONOMIC IMPACT:** A statement concerning the ergonomic implications of the technology. Ergonomics is the study of developing products and systems that meet peoples' needs.

Impact Statements offer the student the opportunity to see beyond the activities in the Technology Learning Lab and glimpse the real-world applications of the technology.

USING THIS PUBLICATION	STUDENT'S SECTION
Career Search	Also on Day Eight, the students are given the assignment of investigating several career opportunities related to the technology of the TLA. The investigation is done with Career Search Abstracts. A list of up to five careers related to the TLA is given, followed by pages from Career Search Abstracts that detail the career qualifications and work environment. The student is required to choose two of the five related careers, read the appropriate abstracts, then write a short essay about why those careers may be appealing.
Posttest Instructions	The students are required to take a Posttest as one of the last day's activities. The instructions for the Posttest are given in this section. The score for the Posttest may be compared to the score for the Pretest to help determine the student's gain during the TLA.
Skunk Works	Skunk Works, a Day Eight optional activity, includes instructions that could be used for solving problems or reinforcing the enrichment of learning. The term Skunk Works was coined by engineers at 3M Corporation in the mid-1960s. Some engineers wanted to develop a new product, but company management would not give them the time or money to work on the project. So the engineers "borrowed" time and money from approved projects to work on their "Skunk Works." When they finished developing the product, they presented it to management and it has been a 3M product ever since. The product: Velcro fasteners.

HAZARD ALERT MESSAGES

The Daily Activities include hazard alert information specific to the Activity. These messages should be discussed carefully and thoroughly. The Hazard Alert Message system used in the TLA is based on the American National Standards Institute (ANSI) Standard Z535, which provides for five levels of alert.

Students are introduced to the ANSI Hazard Alert Message system as an activity in the Laboratory Safety for Construction Technology TLA (TE1107/TE3107). This system was adopted by ANSI as the standard in 1990 and will be the hazard alert system in use when students reach the workplace.

Hazard Alert Messages in the TLA are indicated both by the color red and graphically. There are three types of hazard alert graphics used in the TLA: the hazard alert symbol, injury hazard graphics, and avoidance graphics.

This Hazard Alert Symbol is used with the words **DANGER, WARNING,** and **CAUTION.** ANSI defines these words as:

DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION indicates a hazardous situation which, if not avoided, may result in minor or moderate injury.

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USING THIS PUBLICATION

STUDENT'S SECTION

There are two types of graphics used in conjunction with the hazard alert symbol. This type of graphic depicts a specific injury that may be expected if the hazard described in the alert is not avoided.

This second type of graphic is called an avoidance graphic. It depicts an action the student should take in order to avoid injury.

There are two other ANSI words used in the TLAs and the students should understand their meanings:

NOTICE indicates an action that could result in damage to property or equipment.

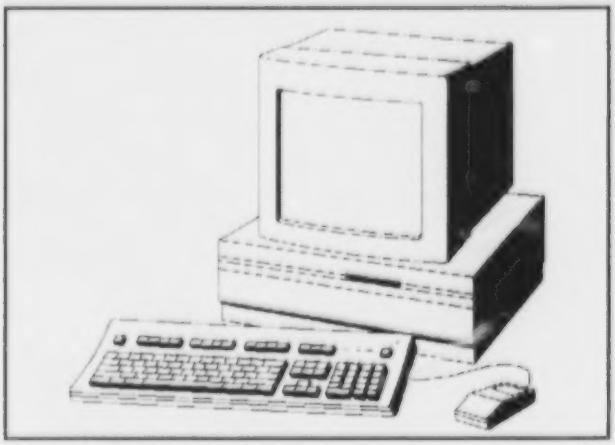
IMPORTANT indicates an instruction that can help the student do a better job.

TECHNOLOGY EDUCATION

Electronic Publishing

TE1135/TE3135

INSTRUCTOR'S SECTION



BACKGROUND INFORMATION

Electronic publishing is no longer reserved for big industries with lots of money to spend. Today almost anyone can electronically publish a neighborhood newsletter, garage sale flyers, or fancy brochures. All it takes is a computer, a laser printer, and software. Your students may already be publishing a school newspaper or yearbook with electronic publishing software.

Even though Microsoft® Publisher is easy to use, it is a powerful, full-featured publishing program. Your students' imaginations are the only limits to the publications they can create using this software. You may want to use it for some of your own publishing needs. In case you're wondering, this TLA was written and formatted using Microsoft® Publisher.

INSTRUCTOR'S SECTION

PRIORITY ACADEMIC STUDENT SKILLS

- The student will know and appreciate the importance of technology and technological literacy.
- The student will explore career opportunities so they can make meaningful occupational choices.
- The student will explore future educational opportunities so they can make meaningful educational choices.
- The student will apply problem-solving and critical thinking techniques.
- The student will apply math, science, reading, and other school subjects in a practical situation.
- The student will develop keyboarding and computer literacy skills.
- The student will develop basic skills in the safe and proper use of tools, machines, materials, processes, and technical concepts.
- The student will think logically and sequentially.
- The student will develop leadership, creative abilities, positive self-concepts, and individual potential in a technological society.
- The student will develop an understanding of and the ability to adapt to those technological forces that influence life in the 21st Century.
- The student will apply design, imagination, and creative abilities.

INSTRUCTOR'S SECTION

SUGGESTED ACTIVITIES

- ✓ Obtain materials to supplement TLA.

  See Suggested Resources for computer software and books to supplement this module.
- ✓ Review instructional outline for this TLA. Modify time frames to suit class needs and plan activities for each class period.
- ✓ Study the specific objectives to determine those you will cover in your presentation. Decide also which objectives should be taught to which students.
- ✓ Determine scope and sequence of objectives that you add to the TLA. Design and develop support materials, including evaluation techniques, for additional objectives.
- ✓ Determine how you will schedule time for students to demonstrate competence in the required procedures.
- ✓ Make arrangements for guest speakers. Supply speakers with specific objectives and other appropriate sections of this TLA.
- ✓ Practice using Microsoft® Publisher so that you will be familiar with how it works and what it can do. Prepare samples of some of the publications it can create.
- ✓ If you haven't already done so, decide how your students will save and print their Publisher files.

INSTRUCTOR'S SECTION

PREPARATION

SUGGESTED RESOURCES

Books

Microsoft® Publisher User's Guide. Microsoft Corporation. 1993

Microsoft® Publisher Catalog. Microsoft Corporation. 1993

Videos

The following videos should be purchased and are available from CIMC (1-800-522-5180, ext 599).

Career's in Printing "Makin' an Impression." Graphic Arts Education Council, P.O. Box 18838, Oklahoma City73154.

Please Print—The Video. Graphic Arts Education Council, P.O. Box 18838, Oklahoma City73154.

INSTRUCTOR'S SECTION

WORKSTATION BOOKSHELF

Microsoft® Publisher User's Guide. Microsoft Corporation. 1993

Microsoft® Publisher Catalog. Microsoft Corporation. 1993

Simone, Luisa. *Microsoft® Publisher By Design.* Microsoft Press, a division of Microsoft Corporation, Redmond, Washington 98052-6399.

INSTRUCTOR'S REFERENCE MATERIALS

Instructional Sequence	Technology Education: Electronic Publishing		
	Assignments	**Equipment, Tools, and Supplies**	**Facilities, Requirements/ Modifications**
Day 1	Take Pretest. Watch the videos "Careers in Printing—Making an Impression" and "Please Print—The Video." Read and study the Assignment Checklist, Words You Should Know, Priority Academic Student Skills, TSA Competitive Events, and Academic and Workplace Skills. Complete Objective 1: Complete the software activities called "Windows Tutorial" and "Introduction to Publisher."	Computer Score Sheet/card or notebook paper for Pretest VCR and videotapes "Careers in Printing—Making an Impression" and "Please Print—The Video." Computer with Microsoft® Publisher software	
Day 2	Complete Objective 2: Set margins and layout grids. Complete Objective 3: Add text objects to a publication. Complete Objective 4: Add clipart to a publication. Complete Objective 5: Resize and move objects.	Computer with Microsoft® Publisher software	
Day 3	Complete Objective 6: Use the drawing tools to create geometric shapes and designs. Complete Objective 7: Create special text objects using WordArt.	Computer with Microsoft® Publisher software	

Instructional Sequence	Technology Education: Electronic Publishing		
	Assignments	**Equipment, Tools, and Supplies**	**Facilities, Requirements/ Modifications**
Day 4	Complete Objective 8: Group and ungroup objects. Complete Objective 9: Create an audio tape cover by modifying a PageWizard design.	Computer with Microsoft® Publisher software	
Days 5–7	Complete Objective 10: Using Microsoft® Publisher, design and create original publications.	Computer with Microsoft® Publisher software	
Day 8	Complete any incomplete assignments. Read and study Impact Statements. Complete Career Search activities. Take Posttest and Spelling Test. Hand in assignments.	Notebook Paper Computer Score Sheet/card or notebook paper for Pretest	
Skunk Works	Complete a publication, using a scanner if possible, that has been approved by your teacher.	Computer with Microsoft® Publisher software	

Equipment, Tools, and Supplies: Summary Worksheet

Equipment, Tools, and Supplies	Per Student	Per Period	Total Needed	Special Considerations	Per Student	Per Period	Total Needed	Special Considerations
Computer score card sheet or notebook paper	1							
Computer (with mouse) loaded with Microsoft® Publisher software		1						
Videotapes "Careers in Printing—Making an Impression" and "Please Print—The Video."		1						
VCR		1						
Microsoft® Publisher User Guide and Catalog		1						

PRETEST

1. The capability of producing on the computer's screen an accurate picture of what will print is called

   a. TrueType
   b. WYSIWYG
   c. TruView
   d. It's Right

2. A symbol used to set off sections of text or items in a list is called a

   a. dingbat
   b. serif
   c. pointer
   d. bullet

3. Putting the mouse pointer over or pointing it at an object, then pressing and releasing the mouse button is called

   a. clicking
   b. dragging
   c. double-clicking
   d. pointing

4. The special memory area in Windows that temporarily stores a copy of the last item copied or cut is called

   a. the saving place
   b. the file
   c. the clipboard
   d. the mail screen

5. Removing an object from one place and putting it somewhere else is called

   a. cut and paste
   b. save
   c. add and delete
   d. replace

INSTRUCTOR'S SECTION

PART 1

PRETEST

INSTRUCTOR'S SECTION

PART 2

6. The mouse operation that is done by pointing at the object and holding down the left mouse button while you move the mouse is called

   a. clicking
   b. dragging
   c. double-clicking
   d. moving

7. A font is a set of characters of the same face, weight, and style.

   a. True
   b. False

8. Before adding anything to a Publisher publication, you must first draw a frame.

   a. True
   b. False

9. Text that is left justified is

   a. even on the left side
   b. uneven on the left side
   c. even on both sides
   d. uneven on both sides

10. The laser printer is used to make as many copies of your publication as you need.

    a. True
    b. False

POSTTEST

11. The capability of producing on the computer's screen an accurate picture of what will print is called

    a. TrueType
    b. WYSIWYG
    c. TruView
    d. It's Right

12. A symbol used to set off sections of text or items in a list is called a

    a. dingbat
    b. serif
    c. pointer
    d. bullet

13. Putting the mouse pointer over or pointing it at an object, then pressing and releasing the mouse button is called

    a. clicking
    b. dragging
    c. double-clicking
    d. pointing

14. The special memory area in Windows that temporarily stores a copy of the last item copied or cut is called

    a. the saving place
    b. the file
    c. the clipboard
    d. the mail screen

15. Removing an object from one place and putting it somewhere else is called

    a. cut and paste
    b. save
    c. add and delete
    d. replace

INSTRUCTOR'S SECTION

PART 1

POSTTEST

16. The mouse operation that is done by pointing at the object and holding down the left mouse button while you move the mouse is called

    a. clicking
    b. dragging
    c. double-clicking
    d. moving

17. A font is a set of characters of the same face, weight, and style.

    a. True
    b. False

18. Before adding anything to a Publisher publication, you must first draw a frame.

    a. True
    b. False

19. Text that is left justified is

    a. even on the left side
    b. uneven on the left side
    c. even on both sides
    d. uneven on both sides

20. The laser printer is used to make as many copies of your publication as you need.

    a. True
    b. False

INSTRUCTOR'S SECTION

PART 2

POSTTEST

21. elektronik
22. bullet
23. kamera ready
24. clik
25. clipboard
26. font
27. fram
28. puldown menu
29. double-click
30. drag

INSTRUCTOR'S SECTION

SPELLING TEST

TEST ANSWERS

1. b
2. d
3. a
4. c
5. a
6. b
7. a
8. a
9. a
10. b

11. b
12. d
13. a
14. c
15. a
16. b
17. a
18. a
19. a
20. b

21. b
22. a
23. b
24. b
25. a
26. a
27. b
28. b
29. a
30. a

INSTRUCTOR'S SECTION

PRETEST ANSWERS

POSTTEST ANSWERS

SPELLING TEST ANSWERS

EVALUATION SUMMARY

5 POINTS EACH

Pretest _____

Career Search _____

10 POINTS EACH

Objective 2: Set margins and layout grids. _____

Objective 3: Add text objects to a publication. _____

Objective 4: Add clipart to a publication. _____

Objective 5: Resize and move objects. _____

Objective 6: Use the drawing tools to create geometric shapes and designs. _____

Objective 7: Create special text objects using WordArt. _____

Objective 8: Group and ungroup objects. _____

Objective 9: Create an audio tape cover by modifying a PageWizard design. _____

Objective 10: Using Microsoft® Publisher, design and create original publications. _____

INSTRUCTOR'S SECTION

1. **PROCESS EVALUATION**

1. PROCESS EVALUATION SCORE _____

EVALUATION SUMMARY

The instructor is encouraged to individualize the TLA to address the specific needs of each student, considering age and ability level. In addition to the specific areas on the chart below, the instructor should take into account the student's desire, enthusiasm, etc.

Evaluation based upon = 100 possible points, broken down as follows.

EVALUATION RATING TABLE

Student Name: _____

Criteria	Points Possible	Points Earned
Formatted Name	10	____
WordArt product	10	____
Cassette Tape Cover	25	____
Original Publication	40	____
Essay	15	____

INSTRUCTOR'S SECTION

2. PRODUCT EVALUATION

2. PRODUCT EVALUATION SCORE ____

EVALUATION SUMMARY

Posttest Score _____

EVALUATION WORKSHEET

1. Process evaluation score = _____
2. Product evaluation score = _____
3. Written evaluation score = _____
4. Total score = _____

Divide Total Score by 3 to get TLA score.

INSTRUCTOR'S SECTION

3. WRITTEN EVALUATION

WRITTEN EVALUATION SCORE _____

Total Score for TLA =1+2+3

Total Score for TLA divided by 3 equals the TLA score.

TLA SCORE _____

BIBLIOGRAPHY

Microsoft® Publisher User's Guide. Microsoft Corporation. 1993

Microsoft® Publisher Catalog. Microsoft Corporation. 1993

Simone, Luisa. *Microsoft® Publisher By Design.* Microsoft Press, a division of Microsoft Corporation, Redmond, Washington 98052-6399.

INSTRUCTOR'S SECTION

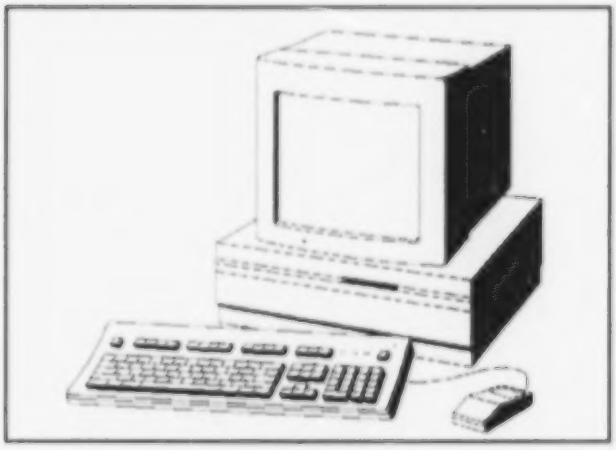
TECHNOLOGY EDUCATION

TECHNOLOGY LEARNING ACTIVITY

TE3135

Electronic Publishing

Suggested Time: 8 Days



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Oklahoma Department of Vocational and Technical Education

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TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

On Day 1 you should complete the following activities:

1. Complete Pretest
2. Watch the following videos:
   - Careers in Printing—Makin' an Impression
   - Please Print—The Video
3. Read Assignments to Turn In (items to completed in 8 days)
4. Read Goal
5. Read Words You Should Know
6. Read Priority Academic Student Skills
7. Read Objectives
8. Read Related TSA Competitive Events
9. Read Academic and Workplace Applications
10. Read Information Sheet
11. Complete Objective 1

DAY 1 ACTIVITIES

SUMMARY OF ACTIVITIES

Functional Reading Skills:

- Use content area vocabulary
- Follow written instructions

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 1 ACTIVITIES

PRETEST

INSTRUCTIONS

You will need a computer scan sheet or card to record your answers to the following Pretest. Be sure to write your name, the title of the TLA, the date, and the class period on the computer scan sheet or card using a #2 pencil. Use rows 1–10 to record the answers to the Pretest. If your answers will be hand-scored, use a blank sheet of paper to record your answers and number your answers 1–10.

Get Pretest Questions from your instructor.

When you finish the Pretest, return the test form and the computer scan card or notebook paper to your instructor.

TECHNOLOGY EDUCATION ELECTRONIC PUBLISHING

DAY 1 ACTIVITIES

ASSIGNMENTS TO TURN IN

At the end of 8 days, you should give the following items to your instructor for evaluation:

1. Computer score card/sheet, with answers to:
   a) Pretest
   b) Posttest (including spelling test)
2. Formatted name activity
3. WordArt activity
4. Cassette Tape Cover
5. Original publication or publications approved by teacher
6. One-page essay describing what you did in this TLA.
7. Career Search Activity
   a) Two careers identified
   b) Explanation of why those occupations appealed to you

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 1
ACTIVITIES

GOAL

The Electronic Publishing TLA will introduce you to the fundamentals of desktop publishing. You will learn how to use publishing software to arrange text and graphics to produce camera-ready publications using good design techniques.

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 1
ACTIVITIES

WORDS YOU SHOULD KNOW

background — a special page in Microsoft Publisher that contains elements, such as page numbers, that repeat on every page of the publication

baseline — an imaginary horizontal line that extends along the bottom of text. Text is usually measured baseline to baseline. The bottoms of letters like g or y go below the baseline.

bullet — a symbol, such as a ▪, •, ●, used to set off a section of text or items in a list

camera-ready copy — pages ready to be photographed by a printer for making printing plates

center alignment — text or other objects aligned on a page an equal distance from both margins or borders

click — the most commonly used mouse operation in Publisher. To click, put the mouse pointer over the object or point it at the object, then press and release one of the mouse buttons. Unless specifically indicated, always click with the left mouse button.

clipboard — a special memory area in Windows or other operating systems that temporarily stores a copy of the last information that was copied or **cut**. Items may be **pasted** from the clipboard into publications.

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 1
ACTIVITIES

WORDS YOU SHOULD KNOW

crop — to hide or cut off unwanted or unneeded parts of an object to make it fit or look better on the page

cut — to remove part of a publication and temporarily store it in the **clipboard** so it can be inserted (**pasted**) someplace else

cut and paste — to remove **(cut)** an object from one place and place **(paste)** it somewhere else. Cut and paste lets the electronic publisher do the same thing on the computer that used to be physically done on paper.

desktop publishing — the use of a computer and specialized software to create a finished publication, complete with text and graphics if needed, that is ready to be printed either on a laser printer or electronic typesetting equipment

double-click — a mouse operation done by **clicking** twice without pausing while pointing at or on an object

drag — a mouse operation done by pointing at an object and holding down the left mouse button while you move the mouse

font — a set of characters of the same face, weight, and style. For example, this book is printed in a font named Avant Garde. It also uses Avant Garde Bold and AvantGarde Italic.

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

frame — in Microsoft® Publisher the name given to the area or space that holds text or graphics. You must first draw a frame before adding text or graphics to a publication.

grid — the name given to the nonprinting horizontal and vertical lines drawn on a page to help align, arrange, and measure text and graphics

hyphenation — dividing a word that falls at the end of a line of text by placing a hyphen at the end of a syllable and putting the rest of the word on the next line. Most word processing and desktop publishing programs provide automatic hyphenation as an option.

import — bringing information from one software package or application into another. The programs must be compatible before data can be imported between them.

justify — to align lines of text evenly along the right, left, or both margins. Text aligned evenly on the right is right justified, text aligned evenly on the left is left justified, and text aligned evenly on both sides has full justification.

landscape orientation — a page arranged so that it is wider than it is tall (see portrait orientation)

layout — arrangement of graphics and text on a page

DAY 1
ACTIVITIES

WORDS YOU SHOULD KNOW

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

layout guides — in Microsoft® Publisher nonprinting horizontal and vertical lines drawn on a page to form a grid that helps align, arrange, and measure text and graphics

page size — length and width (size) of a publication's page. It does not have to be the same size as the paper.

paste — to insert information into a publication from the clipboard. (see cut, cut and paste)

point — the unit of measure used for type size. A point is very small (.0138 inches)—an inch has 72 points.

portrait orientation — a page arranged so that it is taller than it is wide (see landscape orientation)

pulldown menu — menus that appear from a bar on the computer screen and contain lists of related commands

template— ready-to-use-design shells for documents or publications that include formatting, layout, etc. Publisher comes with templates for many different types of publications.

WYSIWYG — (pronounced wizzy wig) an acronym for "what you see is what you get." It refers to the capability to produce on screen an accurate picture of what will print.

DAY 1 ACTIVITIES

WORDS YOU SHOULD KNOW

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

- You will know and appreciate the importance of technology and technological literacy.
- You will explore career opportunities so you can make meaningful occupational choices.
- You will explore future educational opportunities so you can make meaningful educational choices.
- You will apply problem solving and critical thinking techniques.
- You will apply math, science, reading, and other school subjects in a practical situation.
- You will develop keyboarding and computer literacy skills.
- You will develop basic skills in the safe and proper use of tools, machines, materials, processes, and technical concepts.
- You will think logically and sequentially.
- You will develop leadership, creative abilities, positive self-concepts, and individual potential in a technological society.
- You will develop an understanding and the ability to adapt to those technological forces that influence life in the 21st Century.
- You will apply design, imagination, and creative abilities.

DAY 1 ACTIVITIES

PRIORITY ACADEMIC STUDENT SKILLS

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 1
ACTIVITIES

OBJECTIVES

At the completion of this Technology Learning Activity, the you should be able to:

1. Complete the software activities called "Windows Tutorial" and "Introduction to Publisher."
2. Set margins and layout grids.
3. Add text objects to a publication.
4. Add clipart to a publication.
5. Resize and move objects.
6. Use the drawing tools to create geometric shapes and designs.
7. Create special text objects using WordArt.
8. Group and ungroup objects.
9. Create an audio tape cover by modifying a PageWizard design.
10. Using Microsoft® Publisher, design and create original publications.

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 1 ACTIVITIES

RELATED TSA COMPETITIVE EVENTS

The following TLA Competitive Events apply to your study of Electronic Publishing.

- Graphic Design
- Extemporaneous Speech
- Prepared Speech
- Research Paper

See TSA Competitive Events Guidelines for specific details on the competitions.

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 1
ACTIVITIES

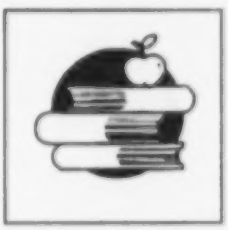
The symbols in the right column are used to identify the Academic and Workplace Applications that are reinforced by specific activities in this TLA.

ACADEMIC AND WORKPLACE APPLICATIONS

Reading Skills Applied:

Research and Reference Skills:
- Use in-book reference tools

Functional Reading Skills:
- Follow written instructions
- Use content area vocabulary

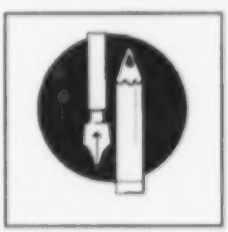


Writing Skills Applied:

Language Skills:
- Use standard grammar, spelling, and capitalization
- State ideas clearly

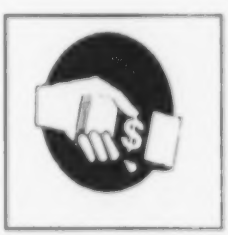
Composition Skills:
- Construct graphics and symbols

Functional Writing Skills:
- Use word processing
- Use computer graphics



Employability Skills Applied:

Job Search/Selection Skills:
- Investigate employment prospects of a career field/occupation
- Analyze duties/requirements/ benefits of specific job
- Analyze personal occupational apptitudes/preferences



—continued—

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 1 ACTIVITIES

ACADEMIC AND WORKPLACE APPLICATIONS

Creative Thinking and Problem Solving Skills Applied:

- Define a problem
- Evaluate alternatives
- Analyze/synthesize information
- Select an alternative
- Create a finished product
- Transfer knowledge/training to new situations
- Apply new technology

Mathematics Skills Applied:

Math Application Skills:

- Use English and metric measures

Functional Math Skills:

- Make measurements

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 1
ACTIVITIES

INFORMATION SHEET

Electronic publishing, commonly called desktop publishing, makes it possible to produce professional-looking documents economically—using a personal computer, laser printer, and publishing software. Today, because of desktop publishing, even the smallest companies and organizations can afford to produce publications such as brochures, newletters, proposals, and even letterhead stationery.

Most desktop publishing software is WYSIWYG (pronounced whizzy-wig). This strange-looking acronyn stands for "what you see is what you get" and means that what you see on the computer screen is what will print.

Desktop publishing lets the user electronically combine text, pictures, and even photographs in publications; view, arrange ,and rearrange them on the computer screen; and finally print them when satisfied with the design.

Only one finished copy of the publication is usually printed on the laser printer. If more than one copy is needed, the user has the option of sending the camera-ready laser copy to an outside printer or copying it on a copying machine.

Even though Microsoft® Publisher, the software you are using, is easy-to-use, it is a powerful, complete desktop publishing software. It allows you to build your publications by adding elements such as text, pictures, and graphics a piece at a time. These elements, or objects as they

are called in Publisher, can be placed on the page however the user wishes—even overlapped, sideways, or upside down. Each of these objects is considered a separate piece of the publication; therefore, a publication is really a group of many different objects arranged on a page.

☑ **NOTE:** This TLA was written and formatted using Microsoft® Publisher—so you can see that the sky is the limit as to what you can do once you've mastered it.

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

Complete the software activities called "Windows Tutorial" and "Introduction to Publisher."

DAY 1 ACTIVITIES

OBJECTIVE 1

TOOLS AND MATERIALS

- Microsoft® Publisher Version 2 software

PROCEDURE

FOLLOW THESE STEPS:

STEP 1: Turn on the computer by following your teacher's instructions. If you are comfortable using Windows and a mouse, go to Step 5. If you would like practice using a mouse or Windows, go to Step 2.

STEP 2: From the Windows Program Manager screen, click on the word **Help** to open the **Help** Menu. Open the **Windows Tutorial** by clicking on it.

STEP 3: Complete the Mouse and Windows tutorial by following the directions on the screen.

STEP 4: Exit the tutorial by clicking on **Exit the Tutorial.** This will return you the the Program Manager screen.

STEP 5: Open Publisher by either double-clicking the Publisher icon or by selecting the icon and then choosing **Open** from the **File** menu.

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 1
ACTIVITIES

FOLLOW THESE STEPS:

STEP 6: From the **Start Up** dialog box that appears after Publisher finishes loading, select **Start From Scratch** by clicking its button and then ckicking the **OK** button or pressing the **Enter** key. Wait while Publication creates the file.

STEP 7: In the menu bar found at the top of the screen, click on the word **Help** to open the **Help** menu.

STEP 8: Choose **Introduction to Publisher** from the **Help** menu. Wait a few seconds for the introduction to load.

STEP 9: Read each screen of the introduction. Click the **Next >** button at the bottom of the screen to move to the next screen. If you want to reread a screen, click the **<** button. If you want to go back to the beginning, click the **I>>**.

STEP 10: When you have finished the activity, click the **Done** button to exit the introduction and return to your original document.

STEP 11: Close Publisher by choosing **Close Publication** from the **File** menu. Since you haven't added anything to the file, you can click **No** when asked about saving the file.

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 1
ACTIVITIES

FOLLOW THESE STEPS:

STEP 12: Exit Publisher by choosing **Exit Publisher** from the **File** menu or by double-clicking the **Control Menu bar** in the upper left corner of the screen.

STEP 13: Turn off the computer by following your teacher's instructions. Return all materials to their proper storage areas and clean up your work area.

If you complete Day 1 Activities with time left over, you may begin Day 2 Activities.

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

On Day 2 you should complete the following activities:

1. Read the Information Sheet.
2. Complete Objective 2.
3. Complete Objective 3.
4. Complete Objective 4.
5. Complete Objective 5.

DAY 2 ACTIVITIES

SUMMARY OF ACTIVITIES

Functional Reading Skills:
- Use content area vocabulary
- Follow written instructions

Research and Reference Skills:
- Use in-book reference tools

Composition Skills:
- Construct graphics and symbols

Functional Writing Skills:
- Use word processing
- Use computer graphics

Math Application Skills:
- Use English and metric measures

Functional Math Skills:
- Make measurements

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 2
ACTIVITIES

INFORMATION SHEET

Microsoft® Publisher is easy to learn and easy to use; once you understand a few concepts and skills, you can create professional-looking publications. On Days 2 and 3, you will learn the concepts and practice the skills.

The most basic concept in Publisher is the object. Everything in a publication is an object. To add an object to a publication, you must first create a frame that will hold the object. This frame defines the object's place on the page.

Publisher uses both toolbars and menus. In fact, each kind of object has its own toolbar and menu commands. These are explained in the Microsoft® Publisher User's Guide. Read and study pages 10–20 and 395–396 in the User's Guide to familiarize yourself with the tools, menus, buttons, and commands. You will use these things later so you don't have to memorize the information. You can always refer to the User's Guide if you need help.

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 2
ACTIVITIES

OBJECTIVE 2

Set margins and layout grids.

INTRODUCTION

Remember you can use pages 17–20 and pages 395–396 in the Microsoft® Publisher User's Guide if you need help identifying or finding buttons, tools, or menus.

TOOLS AND MATERIALS

- Microsoft® Publisher Software
- Microsoft® Publisher User's Guide

PROCEDURE

FOLLOW THESE STEPS:

STEP 1: Turn on the computer by following your teacher's instructions.

STEP 2: Open Publisher by either double-clicking the Publisher icon or by selecting the icon and then choosing **Open** from the **File** menu.

STEP 3: From the **Start Up** dialog box that appears after Publisher finishes loading, select **Start From Scratch** by clicking its button and then ckicking the **OK** button or pressing the **ENTER** key. Wait while Publication creates the file.

STEP 4: Open the **Tools** menu by clicking on the word **Tools.** Look at the items in the menu. Be sure that there is a check mark before **Snap to Grid.** If there isn't, click on it to select the option.

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 2 ACTIVITIES

FOLLOW THESE STEPS:

STEP 5: Be sure that the following commands say **Hide** instead of **Show**.

- Pictures
- Rulers, Boundaries and Guides
- Special Characters
- Toolbar Text
- Status Line

If these commands say **Show**, click on each command to show the items on the screen.

STEP 6: Create a grid by clicking on the word **Layout** and selecting the **Layout Guides** command.

STEP 7: In the **Layout Guides** dialog box, create a publication with one-inch margins on all four sides by entering **1** in the **Margin Guides** boxes or by using the arrow buttons. The preview area shows the effect of any changes made to the margins.

STEP 8: Create a ½-inch grid by entering the following numbers in the **Grid Guides** boxes. Remember that an 8½" by 11" page, with 1-inch margins actually has 6½" by 9" of usable space.

Columns—13 (6½" times ½)

Rows—18 (9" times ½)

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 2
ACTIVITIES

FOLLOW THESE STEPS:

STEP 9: Click the **OK** button or press **ENTER** to close the dialog box and impliment your choices. Your screen should now show a page with blue grid lines every ½-inch.

Continue Day 2 Activities by completing Objective 3.

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 2
ACTIVITIES

OBJECTIVE 3

Add text objects to a publication.

INTRODUCTION

Remember you can use pages 17–20 and pages 395–396 in the Microsoft® Publisher User's Guide if you need help identifying or finding buttons, tools, or menus.

TOOLS AND MATERIALS

- Microsoft® Publisher Software
- Microsoft® Publisher User's Guide

PROCEDURE

FOLLOW THESE STEPS:

STEP 1: Remember that before you can add anything to a publication, you must create a frame for the object. You will be adding text so you have to make a text frame on the page shown on the screen. Click the **Text Frame** button (the one with a A on it) found on the left toolbar.

STEP 2: Move the curser to the page you created in Objective 2. Notice that the curser has changed shapes and now looks like a cross and is referred to as a crossbar. This shape tells you it is ready for you to make a frame.

STEP 3: Position the cross-shaped curser in the upper left corner of the page. Create the frame by holding down the left mouse button and dragging the mouse until the frame is the size you want. For this exercise, make the frame 1" wide and 5" long.

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 2
ACTIVITIES

FOLLOW THESE STEPS:

STEP 4: Release the mouse button to complete the frame. Look at the frame you just made. It probably has small squares, called handles, around the edges of the frame. That means it is selected and is ready for text.If it is not selected, click on the frame to select it. The curser has again changed shapes—this time to a blinking vertical line.

☑ **NOTE:** A basic rule is "Select, then do." In other words, you first select what you want to work on and then tell what you want to do to it.

STEP 5: Click on the word **Zoom** found in the status bar at the bottom of the page. Choose 100 % so you will be able to read the text. Enter your name, a friend's name, or the school's name.

STEP 6: Experiment using the name you entered by changing the font, its size, alignment, and attributes such as bold, italic and underlining. To do this, first select the name by positioning the curser at the beginning of the name and dragging across the name while holding down the left mouse button. The text will be highlighted. Remember all the text you want to change must be highlighted.

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 2
ACTIVITIES

FOLLOW THESE STEPS:

STEP 7: Change the font size using the **Size** list on the top toolbar. Clicking on the down arrow next to the size list opens the list and displays commonly used sizes. You can choose a size from the list or type a number in the box. For this exercise choose a size between 24 and 36 points.

STEP 8: Change the font using the **Font** list on the top toolbar. Clicking on the down arrow next to the size list opens the list and displays the available fonts. Choose one from the list. Repeat the procedure until you have seen each available font.

STEP 9: Click the Effects and the Alignment buttons to see what happens to the text.

STEP 10: Text can also be formated by clicking on the word **Format** at the top of the screen to open the **Format** menu. Choose **Characters** from the pulldown menu to open the Character dialog box.

STEP 11: Experiment with the choices found in the dialog box. The sample area at the bottom of the box shows the results of your choices.

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 2
ACTIVITIES

FOLLOW THESE STEPS:

STEP 12: Experiment to see the different ways the frame itself can be formatted. Remember that the frame is not printed. Click on the word **Format** at the top of the screen. Choose **Borders** from the pulldown menu to open the **Border** dialog box. Choose several different options to see what each does.

STEP 13: Choose **BorderArt** from the pulldown menu to open the **BorderArt** dialog box. Choose several different options to see what each does. The Preview area in the dialog box lets you see the different options.

STEP 14: Decide on the text style you liked best. You will print the formatted name to be turned in to the teacher. Before turning it in, be sure that the text is formatted, and the frame has some type of border.

STEP 15: Follow your teacher's instructions for printing.

STEP 16: Save the file by following your teacher's instructions.

Continue Day 2 Activities by completing Objective 4.

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 2
ACTIVITIES

OBJECTIVE 4

Add clipart to a publication.

INTRODUCTION

Remember you can use pages 17–20 and pages 395–396 in the Microsoft® Publisher User's Guide if you need help identifying or finding buttons, tools, or menus.

TOOLS AND MATERIALS

- Microsoft® Publisher Software
- Microsoft® Publisher User's Guide

PROCEDURE

FOLLOW THESE STEPS:

STEP 1: You will be adding a picture from the Clipart files that came with Publisher. Before you begin you will create a new page for your picture. Create the new page by clicking on the word **Page** and selecting the **Insert Pages** command.

STEP 2: In the **Insert Pages** dialog box, add one page by entering a **1** in the **Number of New Pages** box and selecting **After Current Page.** In the **Options** box, select **Insert Blank Pages.** Click **OK** to actually add the page.

STEP 3: Just like you created a text frame to add text, you create a picture frame to add a picture. Click the **Picture** button found on the left toolbar.

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 2
ACTIVITIES

FOLLOW THESE STEPS:

STEP 4: Move the curser onto the new page you just created. Notice that the curser has again changed shapes and looks like a cross. This shape tells you it is ready for you to make a frame.

STEP 5: Position the cross-shaped curser in the upper left corner of the page. You create all frames exactly the same way—hold down the left mouse button and drag the mouse until the frame is the size you want. For this exercise, make the frame 3" wide and 3" long.

STEP 6: Look at the frame you just made. Does it have selection handles? If it does, it is selected and is ready for a picture. If it is not selected, click on the frame to select it. If your view is not 100%, click on the word **Zoom** found in the status bar at the bottom of the page. Choose 100 %.

STEP 7: To import a picture, click on the word **File** to open the **File** menu. Choose **ClipArt Gallery.**

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 2 ACTIVITIES

FOLLOW THESE STEPS:

STEP 8: The **ClipArt Gallery** is a collection of pictures arranged by categories. Choose the category **Music** from the list of categories at the top of the dialog box by clicking on the down arrow until the word **Music** appears.

STEP 9: Click on the word **Music.** Then click on the picture of the **Jukebox.** Click **OK** to import the picture into the frame you created.

STEP 10: Experiment by creating other picture frames and importing other pieces of art.

Continue Day 2 Activities by completing Objective 5.

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 2
ACTIVITIES

OBJECTIVE 5

Resize and move objects.

INTRODUCTION

Remember you can use pages 17–20 and pages 395–396 in the Microsoft® Publisher User's Guide if you need help identifying or finding buttons, tools, or menus.

TOOLS AND MATERIALS

- Microsoft® Publisher Software
- Microsoft® Publisher User's Guide

PROCEDURE

FOLLOW THESE STEPS:

STEP 1: Create a small text frame, ½" wide by 1" long.

STEP 2: Select the text frame if it is not already selected. If your view is not 100%, click on the word **Zoom** found in the status bar at the bottom of the page. Choose 100 %. Enter your name and the names of 3 or 4 friends or relatives. Put each name on a new line. Keep typing even if you can't see the words as you type them.

STEP 3: Look at the selected text frame. There is a small rectangle with three dots at the bottom. This means that your text frame is too small for the text. You need to resize the text frame so that all the names fit.

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 2
ACTIVITIES

FOLLOW THESE STEPS:

STEP 4: Select the text frame if it not already selected by clicking on it. Position the curser over the selection handle in the bottom right. The curser changes to a double-headed arrow.

STEP 5: Drag the mouse until the object is big enough for you to see all the names. All types of objects can be resized this way.

STEP 6: Select one of the objects on your screen. It can be either text or picture. You will be moving it around on the page.

STEP 7: Move the curser until it is over the selected object. The curser changes to a four-headed arrow with a moving truck icon.

STEP 8: Hold down the left mouse button and drag the mouse until the object is positioned where you want it. All types of objects can be moved this way.

STEP 9: Practice resizing and moving objects using either the pictures you have imported or importing others.

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 2 ACTIVITIES

FOLLOW THESE STEPS:

STEP 10: When you are comfortable moving and resizing pictures and text, delete the objects on this page by selecting them and pressing the **Delete** key to delete picture frames and **Control Delete** to delete text frames.

STEP 11: Save the file by following your teacher's instructions. The **Save** and **Save As** commands are in the **File** menu.

STEP 12: Exit Publisher by choosing **Exit Publisher** from the **File** menu or by double-clicking the **Control Menu bar** in the upper left corner of the screen.

STEP 13: Turn off the computer by following your teacher's instructions. Return all materials to their proper storage areas and clean up your work area.

If you complete Day 2 Activities with time left over, you may begin Day 3 Activities.

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 3 ACTIVITIES

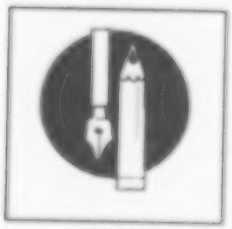
On Day 3 you should complete the following activities:

1. Read the Information Sheet.
2. Complete Objective 6.
3. Complete Objective 7.

SUMMARY OF ACTIVITIES

Functional Reading Skills:
- Use content area vocabulary
- Follow written instructions

Research and Reference Skills:
- Use in-book reference tools



Composition Skills:
- Construct graphics and symbols

Functional Writing Skills:
- Use word processing
- Use computer graphics

Creative Thinking and Problem Solving Skills:
- Analyze/synthesize information
- Create a finished product
- Apply new technology

TECHNOLOGY EDUCATION ELECTRONIC PUBLISHING

Use the drawing tools to create geometric shapes and designs.

Remember you can use pages 17–20 and pages 395–396 in the Microsoft® Publisher User's Guide if you need help identifying or finding buttons, tools, or menus.

- Microsoft® Publisher Software
- Microsoft® Publisher User's Guide

FOLLOW THESE STEPS:

STEP 1: Turn on the computer by following your teacher's instructions.

STEP 2: Open Publisher by either double-clicking the Publisher icon or by selecting the icon and then choosing **Open** from the **File** menu.

STEP 3: From the **Start Up** dialog box, that appears after Publisher finishes loading, select **Open an Existing Publication** by clicking its button. Find the file you saved on Day 2 and open it by double-clicking it or by selecting it and clicking **OK.** Wait while Publication opens the file.

STEP 4: Go to page 2 in your publication by clicking the ▶ in the Page bar at the bottom of the screen.

DAY 3 ACTIVITIES

OBJECTIVE 6

INTRODUCTION

TOOLS AND MATERIALS

PROCEDURE

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 3 ACTIVITIES

FOLLOW THESE STEPS:

STEP 5: Click on the **Line** tool—the first button in the Drawing Tool area. Move the curser to the empty page in your publication. Draw lines by dragging the mouse across the screen.

STEP 6: Click the **Line** tool again. Hold down the **Shift** key while you draw the lines. Be sure to press **Shift** before beginning to draw and hold it down until after you let go of the mouse. What happened to the lines?

STEP 7: Repeat Step 6, holding the **Control** key instead of **Shift**.

STEP 8: Select one of the lines you drew. Experiment to learn what each of the buttons at the top of the screen will do to the line.

STEP 9: Repeat Steps 5–8, using the **Box**, **Oval**, and **Shapes** buttons.

STEP 10: Select every drawing on the page by opening the **Edit** menu and selecting **Select All**.

STEP 11: Press **Delete** to remove all the drawings from the screen.

Continue Day 3 Activities by completing Objective 7.

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 3
ACTIVITIES

OBJECTIVE 7

Create special text objects using WordArt.

INTRODUCTION

Remember you can use pages 17–20 and pages 395–396 in the Microsoft® Publisher User's Guide if you need help identifying or finding buttons, tools, or menus.

TOOLS AND MATERIALS

- Microsoft® Publisher Software
- Microsoft® Publisher User's Guide

PROCEDURE

FOLLOW THESE STEPS:

STEP 1: Remember that before you can add text or pictures to a publication, you must create a frame for the object. You will be adding WordArt text so you have to make a WordArt frame on the page shown on the screen. Click the **WordArt** button found on the left toolbar.

STEP 2: Move the curser to the page you used for Objective 5. Notice that the curser has changed shapes and now looks like a cross—just like it did when you created text and picture frames. This shape tells you it is ready for you to make a frame.

STEP 3: Position the cross-shaped curser in the upper left corner of the page. Create the frame by holding down the left mouse button and dragging the mouse until the frame is the size you want. For this exercise, make the frame 2" wide and 4" long.

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 3
ACTIVITIES

FOLLOW THESE STEPS:

STEP 4: Type your first name or your nickname in the **Enter Your Text Here** dialog box. Click the **Update Display** button to see what your text looks like.

STEP 5: Click on the words **—Plain Text** in the left corner of the top toolbar to open the menu containing different shapes the WordArt text can have.

STEP 6: Click on each of the buttons to see the effect on your name. You will have to reopen the menu each time (click on the word or the arrow). Decide which one you like best and leave it on the screen.

☑ **NOTE:** To edit a WordArt object, select it first by double-clicking anywhere in the frame. This will reopen the WordArt menus.

STEP 7: Click on the word in the next box to the right to open the menu listing the available fonts. Choose each font listed to see what it looks like. Decide which one works best with the shape you've chosen for your name.

STEP 8: Experiment with WordArt using each of the remaining buttons in the toolbar at the top of the screen.

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 3 ACTIVITIES

FOLLOW THESE STEPS:

STEP 9: Decide on the WordArt design you liked best. You will print it to be turned in to the teacher.

STEP 10: Follow your teacher's instructions for printing. To print open the **File** menu by clicking the word **File.** Choose **Print** from the **File** menu.

STEP 11: Save the file by following your teacher's instructions. The **Save** and **Save As** command is in the **File** menu.

STEP 12: Exit Publisher by choosing **Exit Publisher** from the **File** menu or by double-clicking the **Control Menu bar** in the upper left corner of the screen.

STEP 13: Turn off the computer by following your teacher's instructions. Return all materials to their proper storage areas and clean up your work area.

If you complete Day 3 Activities with time left over, you may begin Day 4 Activities.

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

On Day 4 you should complete the following activities:

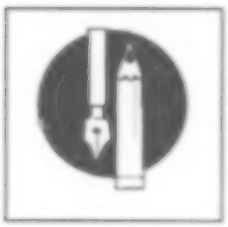
1. Read the Information Sheet.
2. Complete Objective 8.
3. Complete Objective 9.

DAY 4 ACTIVITIES

SUMMARY OF ACTIVITIES

Functional Reading Skills:
- Use content area vocabulary
- Follow written instructions

Research and Reference Skills:
- Use in-book reference tools



Composition Skills:
- Construct graphics and symbols

Functional Writing Skills:
- Use word processing
- Use computer graphics

Creative Thinking and Problem Solving Skills:
- Analyze/synthesize information
- Create a finished product
- Apply new technology

TECHNOLOGY EDUCATION ELECTRONIC PUBLISHING

DAY 4 ACTIVITIES

OBJECTIVE 8

Group and ungroup objects.

INTRODUCTION

Sometimes, when you create a publication, you want to join several objects together to make one object. For example, after you have designed a logo that has both text and graphic objects, you probably want to make that logo one object so you can move it without messing it up. To do this in Publisher, you group the objects. Grouped objects are treated as one object until it is ungrouped.

Remember you can use pages 17–20 and pages 395–396 in the Microsoft® Publisher User's Guide if you need help identifying or finding buttons, tools, or menus.

TOOLS AND MATERIALS

- Microsoft® Publisher Software
- Microsoft® Publisher User's Guide

PROCEDURE

FOLLOW THESE STEPS:

STEP 1: Turn on the computer by following your teacher's instructions.

STEP 2: Open Publisher by either double-clicking the Publisher icon or by selecting the icon and then choosing **Open** from the **File** menu.

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 4
ACTIVITIES

STEP 3: From the **Start Up** dialog box, that appears after Publisher finishes loading, select **Open an Existing Publication** by clicking its button. Find the file you saved on Day 3 and open it by double-clicking it or by selecting it and clicking **OK.** Wait while Publication creates the file.

STEP 4: Go to page 2 in your publication by clicking the ▶ in the Page bar at the bottom of the screen.

STEP 5: Create a new page (page 3) by clicking on the word **Page** and selecting the **Insert Pages** command.

STEP 6: In the **Insert Pages** dialog box, add one page by entering a **1** in the **Number of New Pages** box and selecting **After Current Page.** In the **Options** box, select **Insert Blank Pages.** Click **OK** to actually add the page.

STEP 7: Using your choice of **Drawing** tools, create 6 shapes on the new page.

STEP 8: Hold the SHIFT Key and select one of the shapes by clicking on it. Do not release the SHIFT key.

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 4
ACTIVITIES

FOLLOW THESE STEPS:

STEP 9: Still holding the **Shift** key, select another shape by clicking on it. Repeat this step with 2 more shapes. You should have selected 4 shapes in all.

STEP 10: Release the **Shift** key. You are now ready to make the 4 selected items a group.

STEP 11: Look at the selected objects. A new frame with its own selection handles encloses the entire group of objects. A **Group** button is at the lower right corner of the frame. This button looks like two puzzle pieces.

STEP 12: Click on the **Group** button. The two puzzle pieces are connected, and the objects are grouped.

STEP 13: If the group is not selected, click on it to select it. Then move the cursor inside the object until the cursor changes to the move shape—a four-headed arrow with a moving truck icon. Move the grouped objects to another location on the page. Watch how all the objects in the group move together.

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 4 ACTIVITIES

FOLLOW THESE STEPS:

STEP 14: Click on the **Group** button. The puzzle pieces are separated so the objects are no longer grouped, but they are still all selected.

STEP 15: Click outside the group to unselect all the objects. An individual object can then be selected.

STEP 16: Save the file by following your teacher's instructions. The **Save** and **Save As** commands are in the **File** menu.

STEP 17: Close this publication by choosing **Close Publication** from the **File** menu. Do not exit Publisher at this time.

Continue Day 4 Activities by completing Objective 9.

TECHNOLOGY EDUCATION ELECTRONIC PUBLISHING

DAY 4 ACTIVITIES

OBJECTIVE 9

Create an audio tape cover by modifying a PageWizard design.

INTRODUCTION

The Page Wizards and Templates are two of the most useful, as well as fun, features of Microsoft® Publisher. They help you by providing professionally-designed publications that are already proven to work. Page Wizards create a design based on your answers to a series of questions; templates create a framework for you to use. You can then edit these publications to meet your needs. These ready-to-use designs let you create professional-looking publications quickly. Today you will be using a Page Wizard to create a cover for an audio cassette tape.

Remember you can use pages 17–20 and pages 395–396 in the Microsoft® Publisher User's Guide if you need help identifying or finding buttons, tools, or menus.

TOOLS AND MATERIALS

- Microsoft® Publisher Software
- Microsoft® Publisher User's Guide

PROCEDURE

FOLLOW THESE STEPS:

STEP 1: Open a Page Wizard by choosing **Create New Publication** from the **File** menu.

STEP 2: From the **Start Up** dialog box, that appears after Publisher finishes loading, select **Use a Page Wizard Assistant** by clicking its button.

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 4
ACTIVITIES

FOLLOW THESE STEPS:

STEP 3: From the list of Page Wizard Assistants, open the wizard for the **Tape Cassette Cover** by double-clicking it or by clicking on it and then ckicking the **OK** button or pressing the **ENTER** key. Wait while Publication opens the wizard. You may have to click the down arrow button on the vertical scroll bar to find the command for the tape cover.

☑ **NOTE:** Use the following instructions to move through the wizard. Click the **> button** at the bottom of the screen to move to the next screen. If you want to reread the previous screen, click the **<** button. If you want to go back to the beginning, click the **I>>**. The **Cancel** button closes the wizard without completing the publication.

STEP 4: Respond to the questions as follows.

- Click the **Next >** button to open the wizard.
- From the styles listed, choose **Traditional** and then click the **Next >** button to move to the next question.
- Select the option **One Title for Whole Tape** and then click the **Next >** button to move to the next question.

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 4
ACTIVITIES

FOLLOW THESE STEPS:

- Input the name of the tape. You may use a made-up name or the name of a real tape. Click the **Next >** button to move to the next question.
- Answer the main performer question by choosing **No, just one for the whole tape** and then click the **Next >** button to move to the next question.
- Input the name of the performer. You may use a made-up name or the name of a real performer. Click the **Next >** button to move to the next question.
- Answer the title question by choosing **Inside** and then click the **Next >** button to move to the next question.
- Answer the add titles question by choosing **Later** and then click the **Next >** button to move to the next question.
- Click the **Create It** button and watch as the wizard creates the tape cover.

STEP 5: Click **OK** to open the file that contains the tape cover.

STEP 6: Save the file by following your teacher's instructions. The **Save** and **Save As** commands are in the **File** menu.

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 4
ACTIVITIES

FOLLOW THESE STEPS:

STEP 7: You are now ready to edit the tape cover. Using the Publisher skills you have learned, customize the tape cover so that it looks like you want it to look. If you would rather create a totally different style tape cover, create your own tape cover by starting over with the page wizard. You will turn a tape cover in to your teacher, so be sure to customize whatever the wizard creates so that it is your own design.

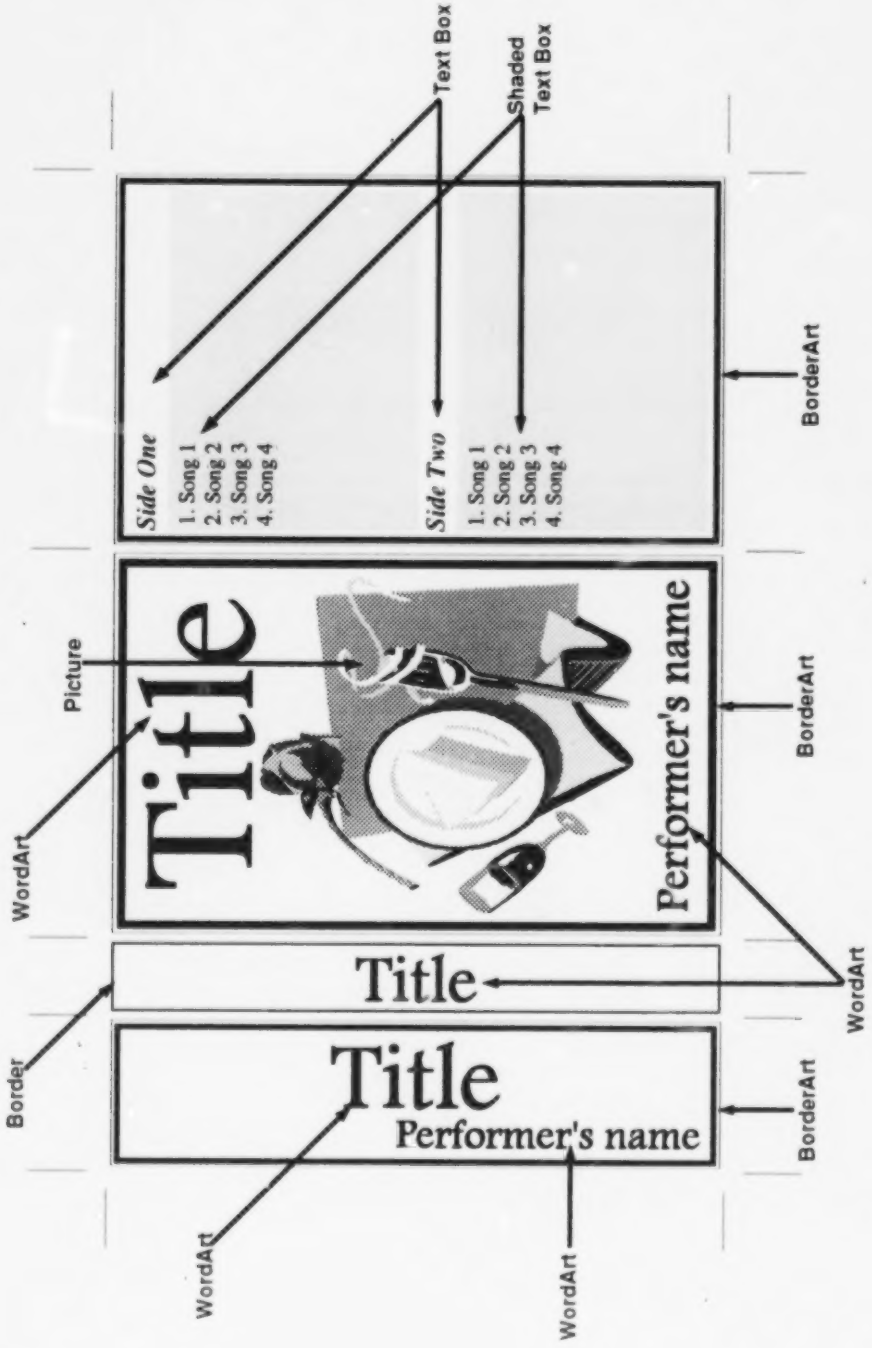
STEP 8: The diagram on the following page identifies the kinds of objects used in the tape cover. Remember you can edit any of the items on the tape cover. You might want to change the picture by replacing it with another piece of clipart or with art from another source. Another good way to customize the tape cover is to change the font and style of the WordArt text.

STEP 9: Follow your teacher's instructions for printing. To print open the **File** menu by clicking the word **File.** Choose **Print** from the **File** menu.

STEP 10: Save the file by following your teacher's instructions. The **Save** and **Save As** commands are in the **File** menu.

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 4
ACTIVITIES



TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 4
ACTIVITIES

FOLLOW THESE STEPS:

STEP 11: Exit Publisher by choosing **Exit Publisher** from the **File** menu or by double-clicking the **Control Menu bar** in the upper left corner of the screen.

STEP 12: Turn off the computer by following your teacher's instructions. Return all materials to their proper storage areas and clean up your work area.

☑ **NOTE:** You work with templates in much the same way as the Page Wizards except there are no questions to answer. Directions for using weach template are included with the template.

If you complete Day 4 Activities with time left over, you may begin Day 5 Activities.

TECHNOLOGY EDUCATION ELECTRONIC PUBLISHING

On Days 5–7 you should complete the following activities:

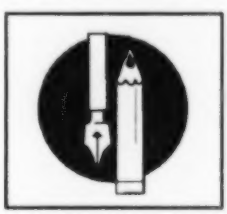
1. Read the Information Sheet.
2. Complete Objective 10.

DAY 5–7 ACTIVITIES

SUMMARY OF ACTIVITIES

Research and Reference Skills:

- Use in-book reference tools

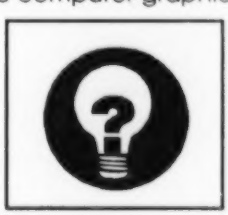


Composition Skills:

- Construct graphics and symbols

Functional Writing Skills:

- Use word processing
- Use computer graphics



Creative Thinking and Problem Solving Skills:

- Define a problem
- Evaluate alternatives
- Analyze/synthesize information
- Select an alternative
- Create a finished product
- Transfer knowledge/training to new situations
- Apply new technology

TECHNOLOGY EDUCATION ELECTRONIC PUBLISHING

DAY 5–7 ACTIVITIES

OBJECTIVE 10

Using Microsoft® Publisher, design and create original publications.

INTRODUCTION

You have now used many of the tools and techniques available in Microsoft® Publisher. For the remainder of this technology learning activity you will create one or more publications of your choice.

Remember you can use pages 17–20 and pages 395–396 in the Microsoft® Publisher User's Guide if you need help identifying or finding buttons, tools, or menus.

TOOLS AND MATERIALS

- Microsoft® Publisher Software
- Microsoft® Publisher Catalog
- Microsoft® Publisher User's Guide

PROCEDURE

Think about the kind of publication you would like to create. It could be anything—letterhead or decoration for personal stationery, an advertisement for a favorite product, a poster, or even a banner for a school event. You can choose do create one large publication or several smaller ones.

Before you decide, you might want to explore Publisher's Wizards and Templates. Looking through these may give you some ideas. The Publisher Catalog provides samples of these designs.

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAYS 5–7
ACTIVITIES

FOLLOW THESE STEPS:

☑ **NOTE:** In addition to the Page Wizards you used on Day 4, the **Wizard** button on the left toolbar provides smaller elements such as Fancy First Letters and logos. You may also want to use these in your publications.

After you decide what you would like to create, have your teacher approve your choices because your will be turning them in later. Remember you have three class periods to work on these publications, so be creative and take the time to investigate all possibilities.

If you complete Day 5–7 Activities with time left over, you may begin Day 8 Activities.

TECHNOLOGY EDUCATION ELECTRONIC PUBLISHING

On Day 8 you should complete the following activities:

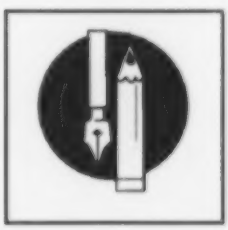
1. Read Impact Statements.
2. Complete Career Search Activity.
3. Complete any unfinished assignments.
4. Complete Posttest.

DAY 8 ACTIVITIES

SUMMARY OF ACTIVITIES

Job Search/Selection Skills:

- Investigate employment prospects of a career field/occupation
- Analyze duties/requirements/ benefits of specific job
- Analyze personal occupational apptitudes/preferences



Language Skills:

- Use standard grammar, spelling, and capitalization
- State ideas clearly

TECHNOLOGY EDUCATION ELECTRONIC PUBLISHING

The growth of electronic, or desktop, publishing has a direct effect on the environment. Preparing materials in-house using a WYSIWYG software usually cuts down drastically on the amount of paper used. Before electronic publishing each design or design idea had to be done on paper for people to see and evaluate. Even the slightest change to the design had to be redone on paper. This process often required numerous tries and much wasted paper before the final design was approved. Today ideas can be looked at onscreen and changes can be made with the push of a button. Very few paper versions have to be used.

The widespread use of electronic publishing makes it both easier and less expensive for people to share and communicate ideas and viewpoints. Today people who work for businesses and causes with small budgets can afford to get their messages out to many people in a professional-looking, more influential way. This means more people can be made aware of all sides of issues and make wiser, more educated choices.

DAY 8 ACTIVITIES

ENVIRONMENTAL IMPACT

SOCIAL IMPACT

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 8
ACTIVITIES

ECONOMIC IMPACT

Economics has greatly influenced the growth of electronic publishing. As computers, printers, and software became more and more affordable as well as more and more efficient, more people were able to buy and use them. As more people become computer literate and begin to use computers in daily life, the demand for new and better software and hardware continues to grow. AS soon as it was economically feasible to use computers for in-house publication needs, the demands for easier-to-use software grew. An indirect economic impact is the growth of desktop publishing supply businesses.

POLITICAL IMPACT

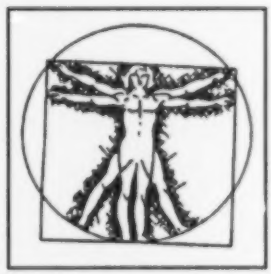
The social impacts of electronic publishing reach over into the political impact area. Electronic publishing allows special interest groups and small political parties to reach more and more people—who are potential members and supporters. Electronically published surveys make it easy for the views of the people to be sent to representatives. It also makes it possible for representatives to more effectively communicate with the voters both during elections and while in office.

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

Ergonomics means developing products and systems that are comfortable for people to use and that really fit their needs. The growth of electronic publishing demonstrates the ergonomic impact. The first electronic publishing products were complicated and hard to learn and use. Most were not WYSIWYG. Therefore very few people used them. When WYSIWYG was developed, more and more people wanted to do their own electronic publishing and software and hardware developers met their needs by creating less complicated software. In many cases the software was developed as a direct result of suggestions from users. This helped ensure that the products would be ergonomically sound.

DAY 8
ACTIVITIES

ERGONOMIC IMPACT



TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 8
ACTIVITIES

CAREER SEARCH ACTIVITY
INSTRUCTIONS

Using *Career Search Abstracts*, find the occupations listed below. Select the two occupations that sound most appealing to you. On a separate sheet of notebook paper, list the two occupations you selected and tell why. Remember to use complete sentences, proper grammar, and correct spelling. Give the sheets to your instructor.

- Advertising Agent
- Compositor and Typesetter
- Prepress Operator
- Public Relations Specialist

RELATED CAREERS

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 8
ACTIVITIES

ADVERTISING AGENT

NATURE OF THE OCCUPATION

Advertising agents plan advertisement programs to generate sales and/or services for customers. They spend time meeting with clients to plan an advertising program or project, researching past advertising strategies of their clients and selling advertising space.

Duties may include but are not limited to the following:

- Studying the products or services of the client
- Reviewing advertising trends and consumer surveys
- Organizing facts in order to plan the advertising campaign
- Consulting with customers
- Budgeting and submitting estimates of costs
- Preparing sales contracts
- Reviewing and proof-reading layout and copy before printing
- Preparing advertising brochures and manuals for publication

OCCUPATION SPECIALTIES

Advertising Sales Representatives (254.357-014) sell classified and display ad space for newspapers or other publications. They visit their clients with layouts and options for advertising.

Outdoor Advertising Leasing Agents (254.357-010) obtain leases to sites for outdoor advertising, and persuade property owners to lease sites in order to build billboard signs for use in outdoor advertising.

Radio and T.V. Time Sales Representatives (259.357-018) contact prospective customers to sell radio and television time for advertising on broadcasting stations or networks.

Signs and Displays Sales Representatives (254.257-010) solicit and draw up contracts for signs and displays.

Sales-Promotion Representatives (269.357-018) persuade customers to use sales promotion display items of wholesale commodity distributor.

WORKING CONDITIONS

Advertising agents may work alone with a client or as part of a team under the supervision of an advertising manager or other agency heads. Advertising agents frequently work under pressure in order to meet deadline dates.

Advertising agents generally work 40 hours a week although evening and weekend work may be necessary to meet deadlines. Travel may be required in order to meet with clients or sellers or to research a product.

Tools, Equipment and Materials used may include:

- Computer Printouts
- Contracts & Other Legal Documents
- Rate Charts
- Account Records & Budgets
- Surveys & Reports Charts

OCCUPATION SPECIALTIES

DOT CODE:	254.357-014	Advertising Sales Representative
	254.357-010	Outdoor Advertising Leasing Agent
	259.357-018	Radio & Television Time Sales Representative
	254.257-010	Signs and Displays Sales Representative
	269.357-018	Sales-Promotion Representative
SOC CODE:	4153	OES CODE: 43023

OKLAHOMA CAREER SEARCH

ADVERTISING AGENT

- Pamphlets, Brochures & Other Materials
- Audio-Visual Equipment
- Advertising Copy
- Typewriters

WORKER REQUIREMENTS

You should like:
- Business contact with people
- Communicating information

You should be able to:
- Work independently
- Work under pressure
- Communicate clearly
- Cooperate and work well with others
- Persuade people in order to sell your ideas

Physically you must:
- Maintain good physical and mental health

Opportunities for Experience:

Employment in advertising or research organizations as an interviewer for market research or as clerks and messengers may provide experience. Co-op programs may be available through vocational centers, local high schools and community colleges.

Methods for Entry:

Methods of entering this occupation include direct application to employer and the use of college placement offices. Positions may be located by consulting newspaper want ads, professional journals and state employment offices.

EARNINGS AND ADVANCEMENT

Earnings depend upon the size and geographic location of the advertising agency, type of accounts handled and gross earnings of the agency. Earnings are also based on the employee's educational background, talent and experience.

Earnings:

Earnings depend upon the size and geographic location of the advertising agency, type of accounts handled and gross earnings of the agency. Earnings are also based on the employee's educational background, talent and experience.

Fringe Benefits:

Depending on the employer, advertising agents may receive paid vacations and holidays, life, accident, disability and hospitalization insurance, retirement plans, and sick pay. These benefits are usually paid for, at least in part, by the employer.

Career Ladder for this Occupation may look like this:
- Own Business
- Agency Partner
- Advertising Manager
- Advertising Agent
- Management Trainee

Advertising agents may advance by demonstrating ability in dealing with and satisfying clients.

EMPLOYMENT AND OUTLOOK

There are approximately 124,400 advertising agents employed nationally. Employment is expected to increase faster than the average for all occupations as the growing number of consumer goods and expanding competition cause advertising expenditures to rise. Employment of advertising agents is strongly affected by general business conditions and the state of the economy. Significant growth is expected to take place in agencies rather than in company advertising departments.

Oklahoma Employment and Outlook

In Oklahoma advertising agents are projected to have 35 job openings annually. These job openings represent new jobs and replacement caused by leaving the occupation, promotions, retirements, etc. In 1990, advertising agents held 1,146 jobs in Oklahoma. They are expected to hold 1,316 jobs by the year 2000.

RELATED EDUCATION AND TRAINING

Level(s) of education and training usually needed for this occupation:
- Technical, junior or community college
- College - bachelor's degree

Level(s) of education and training also available for this occupation:
- College - master's degree

School subjects helpful in preparing for this occupation include:
- College Preparatory
- Arts
- English
- Journalism
- Speech
- Applied Math
- Psychology
- Cooperative Education-Office Distribution
- General Merchandising Office/Distribution
- Business Education

MORE SOURCES OF INFORMATION
- Student Services
  American Advertising Federation
  1101 Vermont Ave., N.W.
  Suite 500
  Washington, DC 20005
- American Association of Advertising Agencies
  666 Third Avenue
  New York, NY 10017
- Western States Advertising Agencies
  2410 Beverly Blvd., Suite #1
  Los Angeles, CA 90057

COMPOSITOR AND TYPESETTER

NATURE OF THE OCCUPATION

Compositors and typesetters are specialists who put written text into a form that printers can use to produce printed matter. Because of advances in printing technology, nearly all composition work is now done with computers.

Duties may include but are not limited to the following:

- Studying work orders and selecting the size and style of type to be used
- Operating typesetting machines to retype a manuscript
- Entering text into a computer program to hyphenate, space and create columns and to store text
- Cutting and rearranging columns of text and illustration as paste-up artists
- Checking text visually and making any required corrections
- Making page proofs to review the entire job

OCCUPATION SPECIALTIES

Linotype Operators (650.582-010) run the keyboard of a machine that assembles individual letters into words and lines and casts them into solid strips of type.

Monotype-Keyboard Operators (650.582-014) run the keyboard of machines that perforate paper tape that is later used to control the casting of type in a monotype caster.

Photocomposing-Machine Operators (650.582-018) set up and operate photocomposing machines to transfer data from perforated or magnetic tape into print on film or photographic paper.

Phototypesetter Operators (650.582-022) run machines that photographically print type matter onto film or strips of photosensitive paper.

WORKING CONDITIONS

Compositors and typesetters generally work alone and may supervise trainees or apprentices.

Compositors and typesetters usually work 35 to 40 hours a week. They may be required to work rotating shifts and weekends and holidays. Overtime may be required to meet project deadlines.

Compositors and typesetters may join a union such as the International Typographical Union. Members usually pay dues.

Tools, Equipment and Materials used may include:

- Cathode-Ray Tube
- Chase
- Composing Stick
- Copy
- Galley
- Illustration Boards
- Laser printer
- Line Gauge
- Linotype Machine
- Monotype Machine
- Phototypesetter
- Proof Press
- Spacers
- Type & Type Case
- Typesetter Computer
- Work Orders

WORKER REQUIREMENTS

You should like:

- Working with objects
- Working with machines and processes

You should be able to:

- Follow detailed instructions
- Use logical step-by-step procedures in your work
- Recognize differences in sizes and shapes of type
- Understand printing terms and measurements
- Use proper grammar, punctuation and spelling
- Type quickly and accurately
- Perform mathematical calculations accurately
- Compare series of letters and numbers accurately
- Work under pressure

Physically you must:

- Possess good eye-hand coordination
- See well, either naturally or with correction
- Be able to reach for, handle, finger and feel different kinds of objects
- Stand or sit for long periods of time
- Lift and carry loads of assembled type weighing up to 100 pounds

OCCUPATION SPECIALTIES

DOT CODE:

973.381-010	Compositor	650.582-014	Monotype Keyboard Operators
650.582-010	Linotype Operators	650.582-022	Phototypesetter Operators
650.582-018	Photocomposing-Machine Operators		

SOC CODE: 6841 OES CODE: 92541, 89702

OKLAHOMA CAREER SEARCH

COMPOSITOR AND TYPESETTER

Opportunities for Experience:

Summer or part-time employment and a formal apprenticeship program may be available through vocational centers, high schools and community colleges.

Methods for Entry:

Methods of entering this occupation include direct application to employers or unions, completion of an apprenticeship program and taking civil service exams. Positions may also be located by consulting newspaper want ads and state employment offices.

EARNINGS AND ADVANCEMENT

Earnings depend upon the type and size of employer, geographic location, union affiliation and employee's skills.

Earnings:

Nationally in 1993, the average income for first year compositors was $16,427 per year, and for typesetters was $15,626 per year. With five years experience, the average compositor earned an average salary of $20,177. The average typesetter with three years experience earned $17,883 in 1993.

Fringe Benefits:

Depending on the employer, compositors and typesetters may receive paid vacations and holidays, sick leave and a retirement plan. These benefits are usually paid for, at least in part, by the employer.

Career Ladder for this Occupation may look like this:

- Shop Superintendent
- Supervisor
- Compositor/Typesetter
- Trainee/Apprentice

Compositors and typesetters may advance through experience, additional training and supervisory ability.

EMPLOYMENT AND OUTLOOK

There were approximately 40,000 compositors and typesetters employed nationally in 1990. Employment of compositors and typesetters is expected to grow about as fast as the average for all occupations through the year 2005. The greatly increased demand for printed materials will balance the lesser need for workers caused by more efficient technology. However, the greatest number of openings will be a result of the need to replace workers who retire or leave the workforce.

RELATED EDUCATION AND TRAINING

Level(s) of education and training usually needed for this occupation:

- On-the-job training
- High school diploma or G.E.D.
- High school diploma with vocational education
- Technical, junior or community college
- Apprenticeship

School subjects helpful in preparing for this occupation include:

- Arts
- Photography
- Composition
- English
- Algebra
- Typing
- Graphic Arts
- Machine Shop
- Metal Shop

MORE SOURCES OF INFORMATION

- Printing, Publishing & Media Workers Sector of the CWA
  501 E. 3rd St., NW
  Washington, DC 20001-2797
- Graphic Arts Technical Foundation
  Order Department
  4615 Forbes Ave.
  Pittsburgh, PA 15213
- National Association of Printers and Lithographers
  780 Palisade Ave.
  Teaneck, NJ 07666
- National Composition & Prepress Association
  100 Daingerfield Rd.
  Alexandria, VA 22314
- Graphic Communications International Union
  1900 NW L St.
  Washington, DC 20036
- National Composition Association of the Printing Industries of America, Inc.
  1730 N. Lynn St.
  Arlington, VA 22209

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 8 ACTIVITIES

PREPRESS OPERATOR

NATURE OF THE OCCUPATION

The entire printing industry is divided into three operations: prepress, press, and binding or finishing. Prepress workers are responsible for preparing printed material for printing presses. This responsibility is shared among many different specialized duties such as designing page layout, photographing text and pictures, typesetting, and making printing plates.

Duties may include but are not limited to the following:

- Using computers to prepare text and pictures for printing
- Handling special equipment that alters the look of text
- Using sophisticated photograph and color separation equipment
- Laying out text and photos in aesthetically pleasing ways
- Working with other members of the prepress team

OCCUPATION SPECIALTIES

Photoengravers (971.381-022) photograph text and pictures using negatives to create photosensitive metal printing plates.

Camera Operators (972.137-010) use special photographic and image making equipment in preparing pictures for photo-offset printing.

Lithographic Strippers (972.281-022) plan the composition of the film flat according to customer specifications. Film flats are a combination of negative and positive images that get photographed for the creation of offset plates.

Lithographic Platemakers (972.381-010) expose light-sensitive metal plates to positive or negative film images to create offset lithographic printing plates.

Paste-up Artists (972.381-030) manually assemble typeset copy and art work into paste-ups for printing reproductions. This assemblage can be either original or according to a specific customer order.

Typesetters (973.381-010) also called "compositors" set type by hand or machine according to work orders.

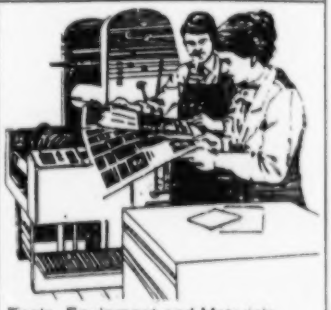
Job Printers (973.381-018) set type and operate an automatic platen press to fill simple printing orders.

Electronic Pagination System Workers (979.282-010) operate special equipment that electronically sets page parameters and type style, corrects color and does retouch work on images and text.

WORKING CONDITIONS

Prepress workers typically work in well lighted, air conditioned settings. Because much of prepress operations are conducted with computers, the working atmosphere tends to be quiet. Some workers such as typesetters, lithographic artists, and strippers may be subject to eyestrain from constant exposure to video display terminals and fine detail work. Platemakers may at times have to work with toxic chemicals and skin irritants.

These occupations are all 8-hour per day, 40 hour per week jobs. The work can sometimes be stressful, as production deadlines are a constant factor in the printing industry.



Tools, Equipment and Materials used may include:

- Computers
- Photographic equipment
- Photographic film and film developing equipment
- Printing plates
- Drafting tables
- Original art work

WORKER REQUIREMENTS

You should like:

- Working with your hands
- Doing visually creative work
- Solving problems
- Doing a good job and producing quality
- Doing fine detail work

You should be able to:

- Work well under time pressures
- Work with machines
- Follow written directions and work orders
- Communicate with other prepress workers
- Pay attention to detail
- Work independently

Physically you must:

- Have good manual dexterity
- Hear well
- See depth, color and shading, either naturally or with correction
- Have physical stamina for tedious work

OCCUPATION SPECIALTIES

DOT CODE:	971.381-022	Photoengraver	972.381-018	Job Printer
	972.137-010	Camera Operator	972.381-030	Paste-up Artist
	972.281-022	Lithographic Stripper	973.381-010	Typesetter
	972.381-010	Lithographic Platemakers	979.282-010	Electronic Pagination System Worker

SOC CODE: 7443 OES CODE: 89716

OKLAHOMA CAREER SEARCH

PREPRESS OPERATOR

Opportunities for Experience:

There are a number of ways to gain experience in this area. By becoming proficient in the use of desktop publishing equipment and software, you can gain significant experience in the "new age" of printing. Desktop publishing is the wave of the future in printing. Most schools and businesses have a modest amount of such equipment, and learning its use is vital.

You can also gain valuable experience by part-time employment in a small print shop or local newspaper. Any organization that has printing facilities holds the possibility of teaching you valuable skills in creative and technical prepress operations.

Methods for Entry:

The method of entry into this profession varies by specific occupation. Some of these occupations can be mastered in months, whereas others require years of practice. All of them start as some form of apprenticeship under the tutelage of a master. Many workers in these jobs begin as paid apprentices, but others opt instead to learn the skills in college.

College education for prepress workers can be either two or four years. Most 2-year programs are designed to produce skilled workers, whereas 4-year programs emphasize management.

EARNINGS AND ADVANCEMENT

The wages of these occupations range depending on the specific occupation, the size of the firm, years of experience, and whether or not the shop is unionized. Advancement is usually dictated by years of experience, capability, and whether or not you have interest in going into management.

Earnings:

Prepress operators earn on average $17,208 in the first year. With five years experience, the average income is $21,138, and with ten years experience the average is $24,190.

Fringe Benefits:

Unionized prepress workers enjoy a host of benefits including health care, retirement, sick pay and paid vacations. Hourly or salaried workers in non-union shops may or may not have these benefits, depending on the prevailing corporate standards.

Career Ladder for this Occupation may look like this:

- Upper Management Positions
- Master Prepress Worker
- Journeyman Prepress Worker
- Apprentice Prepress Worker

EMPLOYMENT AND OUTLOOK

Employment for all prepress workers is expected to grow about as fast as average through the year 2005. This country is experiencing a booming need for printed material, thanks in part to rising personal income, increased school enrollment, and higher levels of educational attainment.

Computer technology is changing the demand for workers in this area. Strippers and electronic pagination workers will be in great demand. Slow growth will be seen for compositors and typesetters, paste up workers and photoengravers.

The employment outlook will always be good for those who become experienced in the use of advancing computer technology. Printing concerns of the future will always demand experienced and capable prepress personnel.

RELATED EDUCATION AND TRAINING

Level(s) of education and training usually needed for this occupation:

- High school diploma/GED

Level(s) of education and training also available for this occupation:

- Continuing education is recommended in this field.

School subjects helpful in preparing for this occupation include:

- Art
- Graphic Arts
- Computers
- School Newspaper
- Photography
- Typing

MORE SOURCES OF INFORMATION

- The Graphic Arts Technical Foundation
  4615 Forbes Ave.
  Pittsburgh, PA 15213

- National Composition and Prepress Association of the Printing Industries of America, Inc.
  100 Daingerfield Rd.
  Alexandria, VA 22314

- Graphics Communication International Union
  1900 L St. NW
  Washington, DC 20036

PUBLIC RELATIONS SPECIALIST

NATURE OF THE OCCUPATION

Public relations specialists plan and conduct public relations programs to promote products, ideas, companies or people. They influence opinions through promotional techniques and two-way communication.

Duties may include but are not limited to the following:

- Determining the needs of the organization or individual
- Preparing and distributing fact sheets, photographs, articles; news releases and/or promotional booklets
- Making speeches, conducting research
- Directing advertising campaigns in all types of media
- Coordinating special exhibits, contests or luncheons into the total public relations plan

OCCUPATION SPECIALTIES

Lobbyists (165.017-010) contact and confer with members of the legislature and other holders of public office to persuade them to support legislation favorable to their clients' interests.

Fundraising Directors (165.117-010) direct and coordinate the solicitation and disbursement of funds for community social-welfare organizations. They establish fund-raising goals according to the financial need of the agency and formulate policies for collecting and safeguarding the contributions.

Funds Development Directors (165.117-014) plan, organize and coordinate ongoing and special project funding programs for museums, zoos, public broadcasting stations and similar institutions. They prepare a statement of planned activities and enlist support from members of the institution staff and volunteer organizations.

Public-Relations Representatives (165.167-014) plan and coordinate public relations programs that are designed to create and maintain a favorable public image for employers and clients.

Sales-Service Promoters (165.167-010) generate sales and create good will for a firm's products by preparing displays and touring the country. They call on merchants to advise them of ways to increase sales and demonstrate products.

WORKING CONDITIONS

Public relations specialists may work alone or with a team on a particular project. The work is often done in comfortable, well- lighted, and well-ventilated offices.

Public relations specialists usually work 35 to 40 hours a week, 5 days a week. A public relations specialist's routine consists of preparing and delivering speeches, attending meetings and community activities, and out-of-town travel. Their schedules may often have to be rearranged in order to meet deadlines, or if there is a change in their planned activities. Many times overtime is required and sometimes specialists are on call around the clock, especially if there is an emergency or crisis.

Public relations specialists may belong to the Public Relations Society of America. Members pay periodic dues.

Tools, Equipment and Materials used may include:

- Typewriters
- Showcases
- Cameras
- Charts
- Telephones
- Interview Forms
- Audio-Visual Equipment
- Account Records
- Surveys and Reports

WORKER REQUIREMENTS

You should like:

- Communicating with people
- Abstract and creative work
- Trouble-shooting and problem-solving

OCCUPATION SPECIALTIES

DOT CODE:	165.017-010	Lobbyist	165.167-014	Public Relations Representative
	165.117-010	Fundraising Director	165.167-010	Sales-Service Promoter
	165.117-014	Funds Development Director		
SOC CODE:	332	OES CODE:	34008	

OKLAHOMA CAREER SEARCH

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 8 ACTIVITIES

PUBLIC RELATIONS SPECIALIST

You should be able to:
- Be persuasive and react to people's ideas and attitudes
- Project self-confidence and speak clearly and calmly
- Effectively communicate ideas and information both verbally and in writing
- Evaluate information and make quick judgments and decisions
- Plan, control and complete projects from start to finish
- Deal with all types of people in various situations

Physically you must:
- Lift and carry light materials
- Be able to see and hear well, either naturally or with correction
- Be able to deal calmly with stressful and emotional situations

Opportunities for Experience:

Summer work at radio and television stations, at newspaper offices, and volunteer work with charitable and community organizations can provide experience in this field.

EARNINGS AND ADVANCEMENT

Earnings vary by the type of business, location and size of employer. Private consulting firms generally pay more than companies that have their own public relations departments. Those who work in public relations firms often receive substantial salary increases based on successful performance.

Earnings:

In 1993, public relations graduates earned an average starting salary of $26,812. Average earnings for experienced specialists were $37,945. The middle 50% earned between $22,004 and $44,981 a year. The top 10% of public relations practitioners in all organizations earned an average salary of more than $57,049, and the lowest 10% earned less than $16,456.

Average salaries vary widely by type of employer. Manufacturers, utilities and public relations counseling firms are among the highest paying employers; museums and miscellaneous nonprofit organizations, religious and charitable organizations, and hotels and resorts are among the lowest paying employers.

In the federal government, those with a Bachelor's degree generally earned starting salaries of $22,387 a year in 1993; those with a Master's degree, $27,397. Public affairs specialists in the federal government averaged $44,241 in 1993.

Fringe Benefits:

Public relations specialists may receive an expense account, hospital and life insurance, sick leave, paid vacations and holidays and retirement plans. These benefits are usually paid for, at least in part, by the employer.

Career Ladder for this Occupation may look like this:
- Own Business
- Supervisor
- Public Relations Specialist
- Public Relations Trainee

A successful career depends on individual ability, initiative, self-confidence, desire, capacity for hard work, and experience.

EMPLOYMENT AND OUTLOOK

Nationally, there are approximately 91,000 public relations specialists employed. Employment is expected to grow as fast as the average for all occupations as corporations, associations, medical centers, and other large organizations expand their public relations efforts. There will be keen competition for beginning jobs since the diversified nature of the occupation attracts many applicants. Prospects for a career in public relations are best for highly qualified applicants--talented people with sound academic preparation and some media experience.

Oklahoma Employment and Outlook

In Oklahoma, 45 job openings for public relations specialists are projected annually until the year 2000. In 1990, public relations specialists held 1,000 jobs in Oklahoma. They are expected to hold 1,143 jobs by the year 2000.

RELATED EDUCATION AND TRAINING

Level(s) of education and training usually needed for this occupation:
- Technical, junior or community college
- College - Bachelor's degree
- Internship

School subjects helpful in preparing for this occupation include:
- College Preparatory
- English
- Journalism
- Speech
- Humanities
- Psychology
- Sociology
- Political Science
- Advertising
- Business Courses
- Creative Writing/Composition

MORE SOURCES OF INFORMATION
- American Assoc. of Advertising Agencies
  666 3rd Avenue, 13th Floor
  New York, NY 10017

TECHNOLOGY EDUCATION
ELECTRONIC PUBLISHING

DAY 8 ACTIVITIES

POSTTEST INSTRUCTIONS

You will need a computer scan sheet or card to record your answers to the following Posttest. Be sure to write your name, the title of the TLA, the date, and the class period on the computer scan sheet or card using a #2 pencil. Use rows 11–20 to record the answers to the Posttest. If your answers will be hand-scored, use a blank sheet of paper to record your answers and number your answers 11–20.

Use rows 21–30 on the test card. If the word is spelled correctly, mark (a) on the computer score sheet or card. If the word is spelled incorrectly, mark (b) on the test card. Be sure to use a #2 pencil and make your marks dark. If your answers will be hand scored, use a blank sheet of paper to record your answers and number your answers 21–30.

Get Posttest Questions from your instructor.

When you finish the Posttest, return the test form and the computer scan card or notebook paper to your instructor.

If you complete Day 8 Activities with time left over, you may complete a Skunk Works activity.

SPELLING TEST INSTRUCTIONS

TECHNOLOGY EDUCATION ELECTRONIC PUBLISHING

SKUNK WORKS

BACKGROUND

The term *Skunk Works* comes from an engineering division of the 3M Company. In the late 1960s, a group of engineers at 3M wanted to design a new product, but the managers of the company would not give them the money for research. So they decided to design the product anyway, then try to convince the company to market it. Whenever the engineers could grab a few extra minutes from their regular assignments, they worked on the new product. In early 1969 they presented it to the marketing division of 3M, and the company has been selling it every since. The product: Velcro fasteners.

SKUNK WORKS CHALLENGE

Choose one of the following publications or present an idea for an original publication to your teacher. If you have access to a scanner, plan to scan a piece of art or a photograph into your publication.

- Write, design and print a newsletter for your school.
- Write, design and print a poster or a flyer promoting a school athletic event, music event, or a club activity.
- Write, design and print letterhead paper and business cards for a company that you invent. You will need to design a company logo.
- Write, design and print a short story, a short play, or a book of poems. Use the book option when you create your publication.